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EDITOR — Harold M. Camp. EDITORIAL BOARD — James H. Hutton, Chairman, Frederick H. Falls, Josiah J. Moore, Edwin M. Miller, Chauncey C. Maher, Harry S. Gradle, Harry Culver, Walter Stevenson, Raymond W. McNealy.

Editorials

THE POST GRADUATE CONFERENCES

The Council of the Illinois State Medical Society approved the recommendation of the Chairman of the Committee on Post Graduate Service that 12 conferences be scheduled and held during the last fiscal year. Eleven conferences were actually held, and the 12th was postponed until after the annual meeting.

The last of the conferences in this series was held at Kewanee on Thursday, April 15, when approximately 100 physicians from many counties were present and heard a well balanced program. The total attendance at these conferences was approximately 1750, and nearly every county in Illinois was represented during the series. Many commendatory expressions were received from hundreds of members who attended these conferences and who expressed the hope that the Society would be equally generous during the next fiscal year, and have as many, if not more, of the conferences scheduled as have been presented in the last series.

The banner attendance in the series was at Decatur on March 25, when more than 200 were present for the dinner, and at least 300 heard the evening program which followed. The attendance at Champaign on April 8 was approximately 190, who were present throughout the afternoon and most of whom remained for the dinner and the evening meeting.

The post graduate conferences have now been conducted over a period of some 10 years, and they have been most popular with the membership as frequently as many as 24 counties are represented at some of the conferences, and rarely less than 15 counties represented at the smaller ones.

The Illinois State Medical Society is deeply indebted to the fine men and women who have appeared on these programs, frequently requiring them to spend two nights on the train and be absent from their work one full day. At most of these conferences physicians have been present who traveled 150 miles or more to be present and some of them have been present at six or more conferences during the series.

The report of the Chairman of the Committee on Post Graduate Medical Service, Dr. Robert S. Berghoff, Chicago, was included in the handbook distributed to members of the House of Delegates, and the recommendations of the references committee to which the report is submitted will govern in a general way the action to be taken by the Council later on in designating the number of conferences to be conducted during the next fiscal year.

THE MEDICAL BENEVOLENCE FUND

Among the many reports which will be submitted to the House of Delegates at the 1948 annual meeting of the Illinois State Medical Society will be the annual report of the Committee on Medical Benevolence, of which Dr. Oscar Hawkinson, Oak Park, is chairman. Doc-

tor Hawkinson once more urges the members of the State Medical Society to send in their contributions to the fund in the effort to build up a substantial fund which will take care of all beneficiaries for some time to come.

Letters were sent to all members of the Society last year and less than 10% made a contribution to the fund. The Aux Plaines Branch of the Chicago Medical Society, of which Doctor Hawkinson is a member, endeavored to get a contribution from each member of the large branch, and at this time the sum of $2,000.00 has been received from their members. The information was also submitted that more will be received in the near future from the Branch, as they are to send additional letters to those members who failed to respond to their first appeal.

The Secretary's Office has recently received copies of resolutions from several component societies in Illinois, which have been approved and will be introduced before the House of Delegates at the annual meeting in Chicago May 10-12. In the several resolutions it is being recommended that the annual dues of the society be increased from one to five dollars annually, the additional amount to go into the Medical Benevolence Fund.

Although secrecy must be maintained in order that there shall be no embarrassment upon the part of beneficiaries, the members of the committee who know the beneficiaries and have seen the many letters of appreciation which have been received from them, realize the value of this service to disabled former members, or the widows of former members who need some financial assistance.

It is quite obvious that there will be much interest displayed in the House of Delegates and no doubt some action will be taken which will materially bring dollars into the benevolence

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GENERAL COUNSEL
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fund. Immediately after the annual meeting, the action taken will be again referred to in the editorial pages of the Illinois Medical Journal.

COMMITTEE ON MEDICAL HISTORY

As has been previously stated, the Illinois State Medical Society has selected a committee on medical history which has been given the responsibility of procuring additional historical data from which it is hoped in the near future, a second volume of the History of Medicine in Illinois may be published.

The Committee has held frequent meetings, and has received a considerable amount of encouragement from all parts of the state. Each county society has received a letter asking that a member, who is interested in medical history, be selected to aid in every way possible in the procurement of the desired information and submit it to the Secretary's office in Monmouth.

Many reports have been received from component societies giving the name and address of these individuals who have been selected to aid in this undertaking. Some counties, however, have not as yet submitted this information, and it is hoped that the response will be 100% in the near future. Certain responsibilities have already been assigned to physicians willing to cooperate in this important venture, and it is hoped that within a short time, many Illinois physicians will be working to make the publication of an outstanding volume on medical history of Illinois from 1850 possible.

As will be recalled by many, the first volume of the History of Medicine in Illinois, published in 1927, ended with the year 1850, so information from that date is especially desirable at this time. There are many sources from which such desirable information may be procured. The files of the daily papers throughout the state will be a valuable source, and likewise the files of weekly or semi-weekly papers will give information which is desired. Many counties have had county histories published perhaps several times beginning about 1870, and these will be of much value in this search for reliable data.

Personal interviews with many of the older physicians throughout the state is also a fertile source for such information, and one which must not be overlooked. The Woman's Auxiliary in their desire to aid in this important work should be of much assistance in procuring information from these sources. We have been asked frequently what type of information is desired, and we will enumerate a number of suggestions which have been approved by the Committee on Medical History.

History of Disease in Illinois
- Cholera
- Small pox
- Typhoid fever
- Diphtheria
- Scarlet Fever
- Tuberculosis
- Venereal Diseases
- Diarrheal diseases of infants and children

Hospitals
- Early hospitals in Illinois; circumstances relative to their creation; their problems, etc.
- Financial straits during depressions
- Extension of services and the changing concepts concerning hospital problems and management

Medical Education
- Early medical schools in Illinois
- Why did they close?
- Early courses of instruction
- Problems of these early schools

Medical Societies
- Early medical societies in Illinois, especially the district societies
- History of these societies; when organized; are they still in existence?
- Why were many of these discontinued, and when?
- Multi-county medical societies, then and now

Legislation
- Medical practice acts; beginning in 1817
- Efforts to create a state health department over a period of years
- Non-graduate and unlicensed practitioner; Society's interest in state mental hospitals; efforts to get them originally, maintain and improve them

Other Institutions under State Department of Welfare
- Workmen's compensation; 1st law sought in 1874 — succeeding laws

State Department of Public Health
- Its organization; scope of activities

Biennial budgets — then and now
Personnel
Present scope of activities of State Health Department
Local Health Departments; when, and how organized; scope of activities
Recent Public health activities
County and multi-county health units
Medical Men and Organizations
Relation to Economic and social life of the state
Travel in Illinois — then and now; railroads; public roads; automobiles-airplanes used by professional men in Illinois
Medical men in political positions in Illinois

This is the type of information that is desired, and physicians who have factual data on these, or other pertinent subjects relative to the practice of medicine in Illinois from 1850 should submit this to the State Society headquarters for the use of the Committee on Medical History. Efforts are being made to locate as much information as possible relative to Illinois physicians caring for soldiers during the Civil War and the Spanish American War, and no doubt assistance can be given by many of the county society historians who have been recently selected to work at the county level with the State Society Committee.

Within a relatively short time, each county society historian will receive a letter from the State Society Committee giving him more information as to his duties so that progress may be continuous as well as productive.

Dr. James H. Hutton, 30 North Michigan Avenue, Chicago 2, is Chairman of the Society's committee, and Dr. D. J. Davis, Permanent Historian, is a member of the Committee. The Committee on Archives likewise is working on this interesting and highly important project, and it is hoped that within a relatively short time, an editor for the volume will be selected who will start the difficult task of selecting the proper material to make an outstanding book on The Medical History of Illinois.

NEW PROFESSIONAL TRAINING OPPORTUNITIES OFFERED ARMY DOCTORS

A revised and greatly expanded professional training program for regular Army and Reserve Medical Officers was announced today by Major General Raymond W. Bliss, Surgeon General of the Army. In line with the policy of providing in the U. S. Army the highest standard of medical care in the world, the program calls for 1900 new doctors in the Regular Army and an increasing number of volunteer Reserve officers on active duty. The program is designed to give many more Army doctors the training needed to meet the requirements for certification by the American Specialty Boards, and to further integrate civilian and military medicine. The new program will facilitate the classification and career management system already in practice in the Medical Corps whereby every effort is made to assign professional officers to posts where they can practice in their special fields of interest.

Five major aspects of the new training program were described by the Surgeon General:

(1) Physicians already resident in civilian hospitals are now eligible for commissions in the Regular Army. Those commissioned may continue their residencies with full pay and allowances from the Army and will be assigned by the Army to the civilian hospital in which they are already resident. Even in the event of a major emergency, residents will complete their training, if it is at all possible. Chances of continuing training for these men will be at least as good as those of civilian doctors in resident training. The Surgeon General's Office will commission 300 residents under this aspect of the program in 1948, 300 in 1949 — 50 as senior residents, 100 as residents and 150 as junior residents.

(2) Civilian interns are now eligible for Army Medical Corps Reserve commissions, and may continue their internship with full Army pay and allowances. Those so commissioned will undertake to accept a commission in the Regular Army on completion of their internship, and will then be permitted to compete for Army residencies in either Army or civilian hospitals. In 1948 and again in 1949, 300 interns will be included in this phase of the training program.

(3) During 1948, 500 younger doctors will be commissioned and assigned to duty at army hospitals in order to compete for 260 residencies in both army and civilian hospitals. Competitive examinations will begin either in September or

October 1948. These residencies are apportioned among the various specialties according to the needs of the Army Medical Corp. Resignation of officers commissioned under this phase of the program will not be accepted within one year after the date of commission.

(4) One hundred and fifty commissions in the grades of major, lieutenant colonel and colonel will be offered in 1948 and another 150 in 1949, to doctors who have completed their training. This aspect of the program is not limited to those men already certified as specialists, since outsanding officers for command and staff positions are needed as well as professional men. Applicants for these commissions in higher grades will not be considered for residencies or specialty training.

(5) Active Reserve Service for specific positions and limited periods will be offered doctors who are not interested in a regular Army career. General announcements for such vacancies, will be made from time to time. Those who come into the service in this manner will not be eligible for residencies, but time spent in practice under this aspect of the program may receive recognition by the specialty board.

The program is designed to attract to a regular Army career medical talent of the highest caliber. One year of active duty as distinguished from training duty is expected for each year of training, whether the training is received in army or civilian institutions. Resignations will not be considered until this obligation has been fulfilled.

Training continuous until completion of the requirements for Specialty Board certification is a definite aim of the program, the Surgeon General emphasized.

The program has been presented to the Council on Medical Education and Hospitals of the American Medical Association and to the Association of American Medical Colleges. Both bodies have officially recognized the value of the program in its entirety.

Information concerning any part of the program may be obtained from the Surgeon General's Office. Address requests to the attention of the Chief of Personnel, SGO, Department of the Army, Washington, D. C.

NATIONAL GUARD REORGANIZATION

In recognition of the great service rendered the nation during the past two wars, our government has seen fit to reorganize the National Guard on a new and larger scale. During the past war especially, the Guard proved its value as a component of the Army of the United States and that it is necessary for the defense and security of our country as planned in the National Defense Act of 1918.

As M Day forces, Guard units fought gallantly in the Philippines, upholding the best American traditions. The various Guard units in this country became the frame work upon which was built the finest fighting force this nation or any nation has ever seen. Its rapid expansion was made possible by the very existence of the Guard. Cadre after cadre was taken out of the old Guard units to organize and train new units. Finally, the old units themselves ended up with brilliant battle records on the far flung fronts of the world.

The American defense plan worked because civilians with vision pledged themselves in time of peace to protect our country as they joined the ranks of the O. R. C. and the National Guard. Again there is peace and again the challenge that it brings, security. In this world of turmoil, a strong national defense is necessary for the security of peace. Our plan of defense calls for strong civilian components of the army, a larger O. R. C. and a larger, well trained National Guard.

The War Department contemplates a total National Guard strength of 682,796 contained in 6,973 units. The major components will be 27 Infantry Divisions and 514 Air units. Other combat and service units make up the bulk of the force. Illinois has been alloted the following units: 33rd Inf. Division, 44th Inf. Division, 66th Fighter Wing, 178th Combat Team, 623rd Q. M. Group, 109th AAA Brigade, 106th Cav. RCU Squadron, this will give Illinois a total strength of 38,487 officers and men.

The Medical Department will be no small part of the new Illinois National Guard. 32 units are contemplated with a total strength of about 100 Medical Corps Officers, 30 Dental Corps, 52 Medical Service Corps, 4 Warrant Officers, 2 Chaplains and 1,689 Enlisted Personnel. On

the 31st of January 1948 there were 17 units organized. The strength of these activated units was 27 Medical Corps Officers, 11 Dental Corps, 24 Medical Service Corps, 1 Warrant Officer, 1 Chaplain and 232 Enlisted men. 15 Units are yet to be organized and activated, requiring 73 medical officers.

The leading Illinois National Guard medical organization is the 108th Medical Battalion of the 33rd Infantry Division, Chicago, Illinois. This unit has enjoyed a brilliant record in the past, dating back to 1910, when the 1st field hospital was organized in Illinois. These units served in Federal duty on the Mexican border in 1916, and later continued as Illinois National Guard units. During World War I, they were incorporated into a new organization known as the 108th Sanitary Train, which served splendidly in several actions in France. The units returned to the United States and were again formed in 1924 to constitute the 108th Medical Regiment.

In 1941, the regiment was inducted into Federal service as part of the 33rd Infantry Division and was sent to Camp Forrest, Tennessee, under command of the illustrious Colonel McKinly of the Veterans' Administration. Hines Hospital, Chicago, Illinois. In 1942, the 108th Medical Regiment was again reorganized to form the 108th Medical Battalion under the able leadership of Lt. Colonel Phillip M. Bedessem, Veterans' Administration. Hines Hospital, Chicago, Illinois. With this reorganization, Colonel Bedessem became Division Surgeon and Lt. Colonel Timothy F. Mullen, Seneca, Illinois, took command. The Battalion moved to Fort Lewis, Washington, where the command was turned over to the capable hands of Lt Colonel Durand Smith, Chicago, Illinois, and Lt Colonel Mullen became the Division Surgeon.

Colonel Smith took the battalion through var-

Medical Department — Illinois National Guard

Organization	Commanding Officer	Location	Date Activated
33rd Infantry Division, Surgeon	Lt Col Arthur E. Diggs	Chicago, Illinois	July 1947
108th Med Battalion	Lt Col John R. Tambone	Chicago, Illinois	27 June 1947
Med Detachment, 131st Inf Regt	Major Standiform Helm	Chicago, Illinois	27 June 1947
Med Detachment, 132nd Inf Regt	Major Walter K. Robinson	Chicago, Illinois	3 March 1947
Med Detachment, 228th Inf Regt	Unit Not Organized		
Med Detachment, 33rd Div Arty	Captain John R. Brazelton	Chicago, Illinois	7 April 1947
Med Detachment, 122nd FA Bn	Unit Not Organized		
Med Detachment, 124th FA Bn	None	Chicago, Illinois	11 November 1947
Med Detachment, 210th FA Bn	Major Harold M. Perlmutter	Chicago, Illinois	13 November 1947
Med Detachment, 108th Engr Bn	Unit Not Organized		
44th Infantry Division, Surgeon	Lt Col E. W. Telford	Waukegan, Illinois	June 1947
203d Medical Battalion	Lt Col Ivar E. Dolph	Peoria, Illinois	17 February 1948
Med Detachment, 123rd Inf Regt	Unit Not Organized		
Med Detachment, 129th Inf Regt	Major S. P. Stackhouse	Ottawa, Illinois	7 July 1947
Med Detachment, 130th Inf Regt	Major E. T. Baumgart	Danville, Illinois	12 April 1948
Med Detachment, 44th Div Arty	Unit Not Activated		
Med Detachment, 209th FA Bn	Unit Not Organized		
Med Detachment, 123rd FA Bn	Unit Not Organized		
Med Detachment, 223rd FA Bn	Unit Not Organized		
Med Detachment, 178th Inf RCT	None	Waukegan, Illinois	10 April 1947
Med Detachment, 184th FA Bn	1st Lt Louis H. Coggs	Chicago, Illinois	11 April 1947
184th Medical Collecting Co.	1st Lt Wm. E. Cunningham	Chicago, Illinois	25 April 1947
Med Detach. 198th Trans Tr Bn	Captain Joseph I. Soffer	Chicago, Illinois	22 May 1947
Med Detach., 693rd AAA AW Bn	None	Chicago, Illinois	17 October 1947
Med Detach., 199th Trans Tr Bn	Unit Not Organized		
Med Detach., 698th AAA Gun Bn	None	Chicago, Illinois	11 November 1947
Med Detach., 396th AAA AW Bn	None	Chicago, Illinois	6 November 1947
Med Detachment, 172nd MP Bn	Unit Not Organized		
Med Detach., 106th Cav Sqad	Unit Not Organized		
Med Detachment, 768th AAA Bn	Unit Not Organized		
Med Detachment, 242nd AAA Bn	Unit Not Organized		
Med Detach., 135th Engr C Bn	None	Waukegan, Illinois	

Medical Officers Appointed to the New Illinois National Guard

Name	Rank	Location	Branch
Eldridge W. Telford	Lt Col	De Kalb, Illinois	MC*
John R. Tambone	Lt Col	Chicago, Illinois	MC
Arthur E. Higgs	Lt Col	Chicago, Illinois	MC
Gustav A. Schupmann	Major	Chicago, Illinois	MC
Standiford Helm	Major	Chicago, Illinois	MC
Wayne F. Cameron	Major	Chicago, Illinois	MC
Walter K. Robinson	Major	Chicago, Illinois	MC
Harold M. Perlmutter	Major	Chicago, Illinois	MC
Ivar E. Dolph	Lt Col	Chillicothe, Illinois	MC
Robert M. Younglove	Captain	Kewanee, Illinois	MC
Carleton R. Smith	Major	Peoria, Illinois	MC
George A. Olander	Captain	Chicago, Illinois	MC
Richard W. Karraker	Captain	Chicago, Illinois	MC
Milton Walter Buehrig	Captain	Chicago, Illinois	MC
John R. Brazelton	Major	Chicago, Illinois	MC
James P. Fairbirn	Captain	Chicago, Illinois	MC
Theodore I. Texidore	Captain	Chicago, Illinois	MC
Theodore F. Zmigrodski	Captain	Chicago, Illinois	MC
E. T. Baumgart	Major	Danville, Illinois	MC
Joseph I. Soffer	Captain	Chicago, Illinois	MC
Louis H. Coggs	1st Lt	Chicago, Illinois	MC
Louis Belinson	Captain	Ottawa, Illinois	MC
Stirling P. Stackhouse	Major	Ottawa, Illinois	MC
William E. Cunningham	1st Lt	Chicago, Illinois	MC

*MC — Medical Corps.

ious sojourns in the Southwest Pacific. There he directed the work of the battalion as it made history in support of the 33rd Infantry Division in its brilliant campaigns of New Guinea, Moratai and Northern Luzon. The outstanding way that the battalion evacuated wounded in the difficult Phillipine mountain terrain and the way the sick were cared for in the clearing company and finally the improvised clearing stations of the collecting company, were meritorious and worthy of commendation.

It is, therefore, no wonder that this unit is again out in the lead, having reached the half way mark in officer personnel at this early date. The enthusiasm and hard work of the present Commanding Officer, Lt Colonel John R. Tambone, of Oak Park, Illinois, has put the 108th Medical Battalion on top where it has always been.

Outstanding records of organization are being made by all medical units in the State of Illinois. Much is yet to be accomplished; many medical personnel are yet to be obtained. However, if the present record keeps up, the Illinois National Guard Medical Department will be one of the criterion departments in the country.

The Committee:

Lt. Col. Elbridge W. Telford, 44th Inf. Div. Sgn., co-chairman

Lt. Col. Ivar E. Dolph, Commanding Officer, 44th Inf. Div. Med. Bn, Co-chairman

Lt. Col. John R. Tambone, Commanding Officer, 33rd Div. Med. Bn

Lt. Col. Diggs 33rd Inf. Div. Sgn, Chicago, Illinois

Major Frank Lock, from the Commanding General of Troops Section, Chicago, Illinois

Medical Economics

The Medical Economics Committee — Chauncey C. Maher, Chmn., 6 North Michigan Avenue, Chicago, Edwin S. Hamilton, V. Thomas Austin, Emmet B. Bay, Jay McDonald Milligan, George Halperin, Marie Wessels, Thomas C. Browning, Roland R. Cross, Milton E. Bitter, Edwin F. Hirsch, Ford Hick, Carroll C. L. Birch, Hubert L. Allen.

MEDICAL EDUCATION OF THE GENERAL PRACTITIONER

The phenomenal advances in medicine and the related sciences in the past 40 years have been so diversified and so far reaching as to make specialization inevitable and highly desirable. Further contributions to the science and art of medicine will undoubtedly come from the specialist rather than the general practitioner. However, with all that is rightly claimed for specialization and the specialist as offering the most skilled type of service, one must not lose sight of the fact that specialization inevitably leads to fragmentation of medical service. In his concentration upon his special interest, be that the eye, ear or female pelvis, the specialist is likely to over-look the human organism as a whole. The problem is approached from the periphery, as it were, and extends toward the center rather than in the reverse order.

The function of the general practitioner is clearly to act as the integrator of the process of studying the patient as one whole psychosomatic unit. Add to this the fact that probably as high as 85 per cent of all human ills can be adequately cared for by the general practitioner, and his role in the medical practice of the future assumes an important and dignified position.

The problem of the medical educator therefore is to integrate medical training so as to create a competent general practitioner. That the problem is not simple is reflected in the opinion of Browning[1], that it is much more difficult to produce a competent general practitioner than a specialist. The general practitioner must deal with every conceivable emergency, must know when specialist help is required, and if such help is not available, to do the best that the circumstances allow.

It is felt by most educators that the educational system of the future should be geared to integration of medicine rather than to training of specialists. We should train the specialist to do an essential job not covered by the present specialties. The knowledge and skills of the general practitioner should be geared to preventive services and to the evaluation and treatment of the emotional stresses as well as the treatment of common illnesses by familiar medical technics. The general practitioner offers the simplest road to comprehensive medical care. Integration of medicine therefore can be best accomplished by the training of the good general physician. There has long been an effort on the part of some of the medical schools of this country to coordinate and correlate the diversified subject matter of medical curriculum. Carpenter[2], Dean of the Bowman Gray School Medicine, points out three major defects in the traditional medical curriculum, namely, departmental barriers, lack of proper balance in subject emphasis and failure to correlate the various aspects of the science and art of medicine at the undergraduate level. A teaching program was inaugurated in his school which relates all the subjects in the medical curriculum to one another and emphasizes the study of the whole man in health and disease. The aim is to find the common point between different fields of knowledge and to place special emphasis on that point.

(*Continued on page 242*)

State Department of Public Health

RAPID TREATMENT OF ASYMPTOMATIC NEUROSYPHILIS

L. M. SCHUMAN, M.D., M.Sc.
Chief, Division of Venereal Disease Control
SPRINGFIELD

I. *Introduction.* — Supplementing the rapid treatment program for syphilis (Illinois Medical Journal, April, 1947, pg. 192), certain types of asymptomatic neurosyphilis are now eligible for penicillin therapy at State expense in downstate private facilities under contract with the Illinois Department of Public Health. The suitability of penicillin therapy in such cases has been demonstrated and the schedules described below will be applied in these facilities.

II. *Selection Of Cases.* —

A. The selection of cases of asymptomatic neurosyphilis for therapy with *penicillin alone* is dependent entirely on the *cerebrospinal fluid findings.*

B. The classification of such cases follows the Dattner-Thomas concept of spinal fluid activity which is herewith presented:

Spinal Fluid	Group I (minimal changes)	Group II (moderate changes)	Group III (maximal changes "paretic formula")
Cell count	*Increased above 7	Normal or elevated	Normal or *elevated*
Protein	*Increased above 37 mgm%	Normal or elevated	Normal or *elevated*
Complement-fixation	Negative	Positive with large amounts of fluid (0.2-1.0 cc.)	Positive with small amounts of fluid (0.1 cc. or less)
Colloidal tests	Negative	Curve of any type	"Paretic type" curve

C. Cases exhibiting spinal fluid changes of *Group I or Group II only* will be eligible for admission to contracted private hospital facilities.

D. Patients exhibiting spinal fluid changes consistent with a Group III classification *must* receive the benefit of fever therapy with or without penicillin as an adjunct, since it is this group which has a high rate of development of paresis or taboparesis.

1. Such cases may be referred for fever therapy to State Mental Hospitals as voluntary guest patients, or

2. They may be referred to the Chicago Intensive Treatment Center or the Midwestern Medical Center.

E. *Patients with cardiovascular syphilis complicating their asymptomatic neurosyphilis shall not be admitted for intensive penicillin therapy.*

1. These are special treatment problems, since the danger of fatal Herxheimers exists.

2. Such patients may be referred to the Chicago Intensive Treatment Center or the St. Louis Midwestern Medical Center.

III. *Referral Of Patients By Private Physicians.* —

A. Prior to referral, an adequate spinal fluid examination shall have been performed for the patient.

B. The diagnostic and referral fee paid for cases of early infectious, potentially infectious and early congenital syphilis, as well as for syphilitic pregnancies *will not be paid* for asymptomatic neurosyphilis.

*Since the *cell count* and *protein content* are the significant tests in this differential diagnosis, it is imperative that these be performed!

C. Where clinic facilities are accessible, medically indigent patients may receive spinal fluid examinations at such clinics.

D. In areas not accessible to clinics, medically indigent patients may obtain spinal fluid examinations from the physician of their choice, but at State expense, *provided* that:

1. Such an examination is authorized by the Division of Venereal Disease Control through the full-time city, county or district health officer, and

2. The examination includes a cell count on the fresh spinal fluid.

E. A fee of $10 will be paid for spinal fluid examinations performed by a private physician for *medically indigent* patients provided that the examination includes the cell count on fresh fluid.

F. Physicians will contact their full-time health officer for admission of their cases of asymptomatic neurosyphilis.

IV. *Treatment.* (Classes I and II asymptomatic neurosyphilis.) 50,000 units aqueous penicillin (Crystalline G) *intramuscularly every 2 hours* for a total of 6,000,000 units in 10 *days.*

V. *Post-Treatment Follow-Up.* —

A. Patients will be referred back to their initial physician or venereal disease clinic.

B. For patients discharged from the Chicago Intensive Treatment Center or the Midwestern Medical Center, the follow-up schedule appearing on the respective abstracts of treatment from these institutions should be followed.

C. For patients discharged from downstate private hospital facilities, a suggested routine of follow-up would include a re-examination of the spinal fluid in 6 months after discharge and again at 12 months.

1. The cell count and protein content attain normality very rapidly, usually by the 10th to 12th week following treatment. This is, however, dependent on the duration of the infection.

2. The complement fixation test and the colloidal tests revert to negativity slowly and are usually negative, especially for *early* asymptomatic neurosyphilis, by the 6th month.

3. Some fluids remain fixed as to complement fixation tests and colloidal tests but show a return to normal with respect to the cell count and protein content. These are considered "inactive" fluids according to the Dattner-Thomas concept.

VI. *Indications For Re-Treatment.* —

A. Cases whose spinal fluid examinations reveal no return to normality with regard to the cell count or protein content by the 6th month, should be re-treated, employing a fever regime.

B. Patients revealing an "inactive" fluid on re-examination need not be re-treated, provided they maintain this "inactivity" on the 12-month examination.

VII. *Penicillin For Private Cases.* — Physicians may obtain penicillin for their cases of asymptomatic neurosyphilis who can afford private hospital care merely by requesting the drug from the Division of Venereal Disease Control, Illinois Department of Public Health and provided only that:

1. The case is reported;

2. The recommended schedules are followed;

3. An abstract of treatment is returned to the Illinois Department of Public Health upon completion of therapy.

MEDICAL ECONOMICS (Continued)

There should be little doubt in anyone's mind as to the role of the practitioner in the future practice of medicine in this country. It is with the view of creating the good general physician that the medical curriculums of this country are geared toward integration of medicine rather than training of specialists. G.H.

REFERENCES

1. Browning, C. H.: Equipment for the Calling of Medicine, Glasgow M. J. 27: 63 (March) 1946.
2. Carpenter, C. C.: Integration and Organization of the Medical Curriculum, J. Assoc. Am. Med. Colleges, 22: 30 (Jan.) 1947.

Medico-Legal Briefs

Answers to medico-legal problems of general interest submitted to the Editor will be answered in this department.

PAYMENT FOR SERVICES RENDERED PUBLIC AID RECIPIENTS

The Question

"The physicians in our county object to the present method of paying for services rendered recipients of the Public Aid Program by the Illinois Public Aid Commission. You no doubt know that payments for these medical services are paid to the recipient who in turn is supposed to pay the physician. Unfortunately in too many cases the patient forgets to pay the physician using the additional allowance for personal expenditures.

Our county society objects to this procedure and would like to have the State Medical Society insist that direct payment to physicians be instituted as soon as possible. Will you please in your columns comment on this situation and show why direct payments should not be insisted upon. We would also appreciate any additional information we can get on this subject."

This question was referred to officials of the Illinois Public Aid Commission, and the reply was submitted by the Chairman of the Medical Advisory Committee to the I.P.A.C.

The Answer

The public aid funds in Illinois are from two separate sources: (1) from State taxation in which the funds are entirely under the control of the State and (2) a considerably larger amount derived from Federal Aid Funds. Of course the Federal Government takes a very large amount of money from the State and returns a small amount to us again for use under certain prescribed circumstances, but in order to get this amount back it is necessary for the State to live up to the stipulations laid down by the Federal Government. Under the Social Security program the funds to be returned for Old Age Assistance, Aid to Dependent Children, etc. must be spent according to certain qualifications laid down by the Bureau. As I understand it these regulations are not part of laws passed by Congress but are bureaucratic regulations which have the effect of law because there is no one over the bureaus to correct or question their decision. Therefore, until Congress puts out specific laws to change some of the bureaucratic habits or customs, these manifestos have the force of law. One of these rulings is to the effect that a state which receives Federal Aid must give to the recipient of any public assistance program the funds directly to said recipient and not to pay his bills for him. The State would prefer direct payment and I believe most, or probably all, of the Department of Public Assistance in Illinois would much prefer to pay the medical bills direct.

Inasmuch as the hospital program as it has been elaborated, constitutes only a small amount of the welfare expense, the Illinois Department has taken it upon itself to pay that directly and also to pay death benefits directly out of State funds without any Federal matching. But in order to get by on the amount appropriated by the Legislature it is necessary to have Federal matching for a large amount of these funds and this is used, among other things, for the medical care of the public assistance recipients. Until

the Federal regulation is changed it will be impossible to have direct payment unless the State should decide to forego all Federal assistance which it is not financially able to do at the present time.

Incidentally, for the next biennium the Legislature was asked by the Department of Public Assistance to appropriate an amount which the Department felt was an absolute minimum for the program as it has been developed. This amount was $212,000,000. The Legislature, in an attempt at economy, cut this to approximately $175,000,000 which is going to leave a considerable deficit before the two years have elapsed. Because of this deficit which will be a practical certainty unless some deficiency appropriations are passed, the Department of Public Assistance is being compelled to curtail its expenses in every way possible including medical expenses and therefore cannot afford to forego the use of Federal funds.

Several attempts have been made to introduce legislation in Washington to permit the use of Federal funds in direct payment but these bills have always been attached as riders to other bills, some of which were undesirable, and none of which passed through Congress. There is a strong probability that some such bill will eventually pass but until that time, the State will either have to pay the recipient directly or forego Federal aid and this latter the Legislature is apparently unwilling to do.

RECOMMEND HUMAN HYPERIMMUNE SERUM FOR WHOOPING COUGH

Human hyperimmune serum or globulin is more effective than rabbit immune serum and should be used in the treatment of all infants who are seriously ill with whooping cough, according to a study made at the Willard Parker Hospital of the Department of Hospitals in New York. Jerome L. Kohn, M.D., Gittel Rudel, M.D., Lillian Buxbaum, B.S., Alfred E. Fischer, M.D., Catherine Dodyjensky, M.D., New York, Manfred Weichsel, M.D., of Long Island City, and Dorothe H. Gunthier, M.D., Cranford, N.J., are the authors. This paper appeared in the *American Journal of Diseases of Children,* published by the American Medical Association.

A group of 201 young patients with whooping cough was studied. Of these, 43 received serum from human donors who had acquired immunity to the disesase—immunity which is given either by inoculations with Hemophilus pertussis, an organism found in patients with whooping cough, or by recovery from the illness itself; 109 received a concentrated globulin or protein fraction extracted from this serum. These 152 were the youngest or sickest patients. The other 49 received a globulin obtained from rabbit serum.

"The subsequent condition of the infants under one year of age who received the human serum was considered improved in 70 of 79 patients, or 88.6 per cent," the article says. "The apparent response to the serum of patients over one year of age was not so striking. . . . Improvement was noted in 66.6 per cent. . . . It is conceivable that greater improvement would have occurred in the condition of these children with whooping cough had larger amounts of serum consistently been given the older patients. We were unable to do this because of the limited amount of serum available."

"A decrease in paroxysms occurred earlier in the course of whooping cough in this study than was noted in previous years," the article continues. "Emesis was less frequent. The nurses stated that during the months the serum was being administered the ward was quieter both day and night. This was especially true of the infants.

"The rabbit serum was given to 49 children, of whom only nine were under two years of age. Of this group of nine children the clinical course of the disease was considered satisfactory in only one. Even in the children of the older age group, the course of the illness was not so favorable as in those children who had been given human serum (14 children or the 40 showed improvement). . . .

"During a five year period the death rate for the infants less than one year of age under our observation who did not receive serum was . . . 4.9 to 6.7 per cent. Our data demonstrated that the mortality rate for the infants under one year who received serum [1.2 per cent] was lower than that for infants who did not receive serum."

Correspondence

CMS TO HOLD TWO POSTGRADUATE COURSES

The Chicago Medical Society is offering physicians of the country two postgraduate courses in September. A course in hemotology and neurology will be given September 13 — September 18 and another in cardiovascular and respiratory diseases will be given Septembr 20 — September 25, 1948.

The sessions will be held in Thorne Hall on Northwestern University Medical School campus.

An outstanding group of teachers from all sections of the United States will make up the faculty.

Information may be secured by writing the Chairman, Committee on Postgraduate Medical Education, Chicago Medical Society, 30 North Michigan Avenue, Chicago 2, Illinois.

OPPORTUNITIES FOR NAVAL RESERVE MEDICAL OFFICERS

The Naval Air Reserve Training Command, with headquarters at Naval Air Station, Glenview, Illinois, has 18 nationally located Naval Air Stations and 4 Naval Air Reserve Training Units at which Naval Reserve Medical Officers may serve on active duty with full pay and allowances and with the privilege of returning to civilian life at any time upon request. Additional details may be obtained from Chief of Naval Air Reserve Training, Naval Air Station, Glenview, Illinois.

CHICAGO DERMATOLOGICAL SOCIETY ELECTS NEW OFFICERS

At the meeting of the Chicago Dermatological Society held January 21, 1948, the following officers were elected:

President: Dr. S. W. Becker
Vice-President: Dr. Theodore Cornbleet
Secretary-Treasurer: Dr. Leonard F. Weber

THE AMERICAN CONGRESS OF PHYSICAL MEDICINE

Will hold its twenty-sixth annual scientific and clinical session Sept. 7, 8, 9, 10 and 11 inclusive, at the Hotel Statler, Washington, D. C. Scientific and clinical sessions will be given the days of Sept. 7, 8, 9, 10 and 11. All sessions will be open to members of the medical profession in good standing with the American Medical Association. In addition to the scientific sessions, the annual instruction courses will be held Sept. 7, 8, 9 and 10. These courses will be offered in two groups. One set of ten lectures will be based primarily on physics and physiology and attendance will be limited to physicians. One set of ten lectures will be more general in character and will be open to physicians as well as to physical therapists. The physical therapists must be registered with the American Registry of Physicl Therapy Technicians. Full information may be obtained by writing to the American Congress of Physical Medicine, 30 North Michigan Avenue, Chicago 2, Illinois.

DERMATOLOGISTS TO MEET IN CHICAGO JUNE 20TH

The Society for Investigative Dermatology will hold its ninth annual meeting at the Hotel Sherman, Chicago, on Sunday, June 20th.

The scientific sessions will run from 10:00 A. M. to 6:00 P. M., with an interval for lunch, and will be followed by a dinner at the Hotel Sherman which will be open to members and guests of the Society.

HEMATOLOGISTS TO MEET IN BUFFALO

The International Society of Hematology will hold its bi-annual meeting at the Hotel Statler in Buffalo, New York, August 23-26, 1948.

The following time has been tentatively allotted for symposia and presentations: ½ day on general subjects, including radioactive and stable isotopes in hematology; ½ day for problems and diseases related to the red celis;½ day for problems and diseases related to the white cells; 1 day for immunohematology, Rh-Hr (CDE-cde) antigens and antibodies, and hemolytic anemias; ½ day for coagulation problems and hemorrhagic diseases; and ½ day for business meeting.

Applications for the presentation of scientific exhibits are now being received by Dr. O. P. Jones, Department of Anatomy, University of Buffalo, Buffalo, New York. Chairman of the Program Committee is Dr. Ernest Witebsky, Buffalo General Hospital, Buffalo, New York.

All scientific sessions and exhibits will be open to scientists interested in hematology. This will, of course, include members of the medical profession and those branches of science dealing with hematology, such as biochemistry, biophysics, genetics, immunology, etc.

Those interested in attending the meetings may communicate with Dr. Sol Haberman, Secretary, The William Buchanan Blood Center, Baylor Hospital, Dallas, Texas.

EXAMINATIONS FOR CHEST PHYSICIANS

The Board Of Examiners of the American College of Chest Physicians announces that the next oral and written examinations for Fellowship will be held at Chicago, June 17, 1948. Candidates for Fellowship in the College, who would like to take the examinations, should contact the Executive Secretary, American College of Chest Physicians, 500 North Dearborn Street, Chicago 10, Illinois.

The Fourteenth Annual Meeting of the America College of Chest Physicians will be held at the Congress Hotel, Chicago, Illinois, June 17-20, 1948. An interesting scientific program has been arranged for this meeting, and speakers from several other countries are scheduled to appear.

ANNOUNCEMENT TO ALL COUNTY MEDICAL SOCIETY OFFICERS

You are herewith invited to participate in the third national conference of county medical society officers Sunday — June 20, 1948 — 2:00 P. M. — 5:30 P. M.

The subject for discussion is *The Job Of The County Medical Society.* The program will consist of three panel discussions — each to be followed by an open question and answer period: The County Medical Society — *Its Part In Medical Organization,* The County Medical Society — *Its Responsibility To Its Membership,* and The County Medical Society — *Its Responsibility To The Public.*

AMERICAN PHYSIOTHERAPY ASSOCIATION ANNUAL CONFERENCE

To be held at the LaSalle Hotel, Chicago, Illinois
May 23-28th, 1948

PROGRAM

SUNDAY, MAY 23

3:00 P.M. Registration.

4:00-5:00 P.M. Open hearing on by-laws.

7:30 P.M. Formal opening of 25th Annual Conference — Sue Reen, President, American Physiotherapy Association.

Greeting from the Illinois Chapter — Dorothy Stults, President.

Greeting from American Congress of Physical Medicine — H. Worley Kendell, M.D., President.

"The Physical Therapist in the Expanding Program of Medical Care" — Hart E. Van Riper, M.D., Medical Director, National Foundation for Infantile Paralysis.

MONDAY, MAY 24

9:00-12:00 noon General Session, House of Delegates.

12:00-2:00 P.M. Luncheon.

2:00-3:30 P.M. "Management of Patients with Spinal Cord Injuries and Demonstration of Patient" — Louis B. Newman, M.D., Chief, Phys-

ical Medicine Rehabilitation, Veterans Administration Hospital, Hines, Illinois, and Physical Therapy Staff.

3:30-4:00 P.M. Viewing of Exhibits.

4:00-5:00 P.M. "Nerve and Tendon Injuries of the Hand" — Sumner L. Koch, M.D., Professor of Surgery, Northwestern Medical School.

7:30-9:00 P.M. Movies.

Meeting National and Chapter Committee Chairmen.

TUESDAY, MAY 25

9:00-12:00 noon "Physiological Basis of Muscle Re-education" — Harry D. Bowman, M.D., Professor of Physical Medicine, University of Wisconsin.

12:00-2:00 P.M. Luncheon.

2:00-3:30 P.M. "Contribution of the Physical Therapist to Nursing Education" — Panel Discussion and Demonstration — Jessie Stevenson and guest speakers to be announced.

3:30-4:00 P.M. Viewing of Exhibits.

4:00-5:00 P.M. "The Use of Physical Therapy for the Psychiatric Patient" — Speaker to be announced.

7:30-9:30 P.M. General Session, House of Delegates.

WEDNESDAY, MAY 26

9:00-10:30 A.M. Papers on Research — to be announced.

10:30-11:00 A.M. Viewing of Exhibits.

11:00-12:00 noon "Anterior Poliomyelitis: Early and Late Treatment of Muscle by Electrical Muscle Stimulation" — Stafford L. Osborne, Ph.D. Associate Professor of Physical Medicine, Northwestern University.

12:00-2:00 P.M. Luncheon.

2:00-3:30 P.M. "Treatment of Poliomyelitis: The Functional Viewpoint" — Emil D. W. Hauser, M.D., Assistant Professor of Bone and Joint Surgery, Northwestern University.

3:30-4:00 P.M. Viewing of Exhibits.

4:00-5:00 P.M. "Importance of Functional Testing and Functional Re-training in the Care of Convalescent Poliomyelitis Patients" — Robert L. Bennett, M.D., Director of Physical Medicine, Georgia Warm Springs Foundation.

7:30 P.M. Banquet (informal)

THURSDAY, MAY 27

9:00-12:00 noon General Session, House of Delegates.

12:00-2:00 P.M. Luncheon.

2:00-3:30 P.M. "Physiology of Peripheral Circulation including Pharmacology" — David I. Abramson, M.D., Clinical Assistant Professor of Medicine, University of Illinois.

"Peripheral Vascular Disease: Clinical Aspects and Treatment, including Physical Therapp" — Geza de Takats, M.D., Clinical Associate Professor of Surgery, University of Illinois.

FRIDAY, MAY 28

9:00-12:00 noon School Section

2:00-5:00 P.M. School Section

All Day Tours selected to the Physical Therapy Departments in Chicago.

WOMAN'S AUXILIARY TO A.M.A. 25TH ANNUAL MEETING, JUNE 20-24

HOTEL LASALLE, HEADQUARTERS, CHICAGO

A cordial invitation is extended to all women, who are auxiliary members or guests of physicians attending the convention of the American Medical Association, to participate in all social functions and attend the general sessions. Whether Auxiliary members or not, the wives of doctors will be most welcome.

Please register early and obtain your badge and program of the social functions. Registration Hours on Sunday, June 20 are from 2:00 to 4:00 P.M. on succeeding days from 9:00 A.M. to 4:00 P.M.

PROGRAM
PRE-CONVENTION MEETINGS
SUNDAY, JUNE 20

Committee Meetings

2:00 to 4:00 P. M. Registration (mezzanine floor)

8:00 P.M. Finance Committee — Room B (mezzanine floor) Mrs. Scott C. Applewhite, Chairman.

MONDAY, JUNE 21

9:30 A.M. Board of Directors — Room B (mezzanine floor) Presiding, Mrs. Eustace A. Allen, Pres.

10:00 A.M. Nominating Committee — Room A (mezzanine floor) Mrs. David M. Thomas, Chairman.

12:30 P.M. Luncheon of Board of Directors — Room C (mezzanine floor)

4:00 P.M. Tea in honor of Mrs. Eustace A. Allen, President and Mrs. Luther H. Kice, President-Elect, Woman's Auxiliary to the American Medical Association, Century Room. Tickets, $1.25. All doctors' wives cordially invited. Hostesses: Auxiliaries to the Illinois State Medical and to the Chicago Medical Society.

8:00 P. M. Revisions Committee Meeting — Room B (mezzanine floor) Mrs. Roscoe E. Mosiman, Chairman.

TUESDAY, JUNE 22, 1948

9:00 A.M. Formal Opening. Illinois Room. Presiding, Mrs. Eustace A. Allen, President; Pledge of **Loyalty to the Woman's Auxiliary to the American** Medical Association, Mrs. Jesse D. Hamer; Greetings, J. Roscoe Miller, M.D., President, Chicago Medical Society; Address of Welcome, Mrs. John Soukup, Immediate Past President, Woman's Auxiliary to the Illinois State Medical Society; Response, Mrs. Robert Flanders, President, Woman's Auxiliary to the New Hampshire Medical Society; Presentation of Convention Chairman, Mrs. Rollo K. Packard; Presentation of President-Elect, Mrs. Luther H. Kice; Introduc-

tions, Mrs. Eustace A. Allen; Roll Call, Mrs. George Turner, Constitutional Secretary; Minutes of the Twenty-Fifth Annual Meeting, Mrs. George Turner; Convention Rules of Order, Mrs. John S. Bouslog; Credentials and Registration, Mrs. James M. McDonnough; Address of the President, Mrs. Eustace A. Allen; Reports of Officers.

12:00 P.M. Luncheon in honor of the Past Presidents of the Woman's Auxiliary to the American Medical Association, Grand Ballroom. Tickets, $3.50. Mrs. Rollo K. Packard, past president, presiding. Guest Speaker, Morris Fishbein, M.D., Editor, Journal of American Medical Association and HYGEIA.

AFTERNOON SESSION

2:00 P.M. Report of the Board of Directors, Mrs. Eustace A. Allen; Reports of Chairmen of Standing Committees; Report of the Historian, Mrs. Jesse D. Hamer; Report of the Central Office and Bulletin Circulation, Miss Margaret Wolfe; Report of the Nominating Committee (first reading) Mrs. David W. Thomas, Chairman; Election of the 1949 Nominating Committee.

4:00 P.M. Round Table Discussion.

8:00 P.M. Opening Meeting of the American Medical Association, Grand Ballroom, Hotel Stevens. Members of the Woman's Auxiliary and guests are welcome.

WEDNESDAY, JUNE 23, 1948

9:00 A.M. General Session, Illinois Room (mezzanine floor) Presiding, Mrs. Eustace A. Allen; Greetings, Warren W. Furey, M.D., Chairman, Local Committee on Arrangements, A.M.A.; Minutes, Mrs. George Turner; Announcements, Mrs. Rollo K. Packard; Credentials and Registration, Mrs. James M. McDonnough; In Memoriam, Mrs. Van Buren Philpot; Resolutions, Mrs. Henry Garnjobst; Reports of State Presidents.

12:30 P.M. Annual Luncheon honoring Mrs. Eustace A. Allen, President, and Mrs. Luther H. Kice, President-Elect, Grand Ballroom, Tickets, $3.50. Mrs. Eustace A. Allen, Presiding; Guests of Honor, Dr. Edward L. Bortz, President; Dr. R. L. Sensenich, President-Elect; Dr. J. J. Moore, Treasurer; Dr. George F. Lull, Secretary and General Manager; Dr. Morris Fishbein, Editor of the Journal and HYGEIA, and the Members of the Advisory Council of the Woman's Auxiliary to the American Medical Association.

2:00 P.M. Joint meeting of the Advisory Council of the American Medical Association and the Board of Directors of the Woman's Auxiliary.

AFTERNOON SESSION

2:30 P.M. Unfinished Business; New Business; Report of the Nominating Committee, Mrs. David W. Thomas; Election of Officers; Installation of Officers and Presentation of President's Pin, Mrs. Frank W. Haggard; Inaugural Address, Mrs. Luther H. Kice; Courtesy Resolutions, Mrs. Arthur J. McCarey; Minutes, Mrs. George Turner; Adjournment.

THURSDAY, JUNE 24, 1948

9:30 A.M. Meeting of the Board of Directors, Room B (mezzanine floor) Presiding, Mrs. Luther H. Kice.

6:30 P.M. Annual Dinner of the Woman's Auxiliary for members, husbands and guests, Grand Ballroom (19th floor). Tickets, $4.00.

9:00 P.M. Reception and Ball in honor of the President of the American Medical Association — Palmer House.

LOCAL COMMITTEE ON CONVENTION ARRANGEMENTS

Mrs. Rollo K. Packard, Chairman

Mrs. James P. Simonds	Mrs. John Soukup
Mrs. Arthur I. Edison	Mrs. L. N. Hamm
Mrs. G. Henry Mundt	Mrs. James M. McDonnough
Mrs. Lucius Cole	Mrs. Henry L. Schmitz

Mrs. Nathaniel Baskind — Secretary-Treasurer

Chairmen of Sub-Committees

Credentials and Registration — Mrs. James M. McDonnough, Chairman

Information and Tour — Mrs. Arthur I. Edison, Chairman

Tickets and Reservations — Mrs. W. J. Wanninger, Chairman

Publicity — Mrs. G. T. Buttice, Chairman

Messengers — Mrs. Roy W. Hutchison, Chairman

House — Mrs. O. J. Rabe

Reception — Mrs. G. Henry Mundt, Chairman

Tea — Mrs. James M. McDonnough, Chairman

Luncheon, Tuesday — Mrs. Henry L. Schmitz, Chairman

Wednesday — Mrs. Harold W. Miller, Chairman

Dinner — Mrs. M. M. Hipskind, Chairman

Election — Mrs. Fred Moore

Timekeepers — Mrs. G. G. Woodruff, Chairman

Reading Committee — Mrs. James P. Simonds, Chairman

Original Articles

REPAIR OF LONG BONE DEFECTS WITH MASSIVE BONE GRAFTS

CARLO SCUDERI, MD. PHD.
Former Colonel of the Medical Corps
CHICAGO

Introduction. — Bone graft surgery received its original impetus in World War I when a large number of individuals sustained fractures of the long bones with loss of bone substance and developing non-unions. These cases required rehabilitation. A substantial number of cases came into the hands of a select few who did a great deal to bring the concept of modern bone graft surgery up to a high pinnacle of perfection. Among these men probably the best known and the one who did most to popularize this was Dr. Frederick Albee of New York.

From World War I to the recent conflict a number of cases were done by individual orthopedic surgeons who perfected certain operative procedures or devised certain gadgets to make the technical side of bone graft surgery easier and more efficient. No one individual gained a great deal of experience in bone graft surgery because in civilian life, the number of cases requiring this type of treatment are relatively few, even in such large institutions as the Cook County Hospital in Chicago. For this reason the progress of bone graft surgery was slow and little advancement was made from the days of 1918 to 1920, when most of the bone graft surgery was performed on the casualties of the last war.

During World War II, when a large number of men were under arms and a great many casualties occurred, the incidence of long bone defects became the greatest in history of man. The type of warfare with high explosives and high velocity shells produced injuries to such an extent as were heretofore unknown. With the advent of excellent emergency treatment at the front, the use of sulfa drugs and penicillin, a large number of cases that would formerly have been amputated were saved and returned to the Zone of the Interior where definitive work could be undertaken in highly specialized hospitals by men who were well qualified to do this work, prior to their entrance into the Army.

The Surgeon General's office deserves a great deal of credit for having wisely chosen in most instances men of good clinical experience in civilian life to head the Departments of Orthopedic Surgery in the large general hospitals in the Zones of the Interior. In this manner a great many cases requiring bone graft surgery came into the hands of well trained operative teams who had worked together for many months, and in a number of instances for several years. Consequently the efficiency of this surgery improved tremendously. In many installations, the same surgical nurse was employed day in and day out, month after month. By necessity the operative team became far superior to any operative team that is usually found in civilian life.

This paper is written on personal experiences gained by the author when he was Chief of Orthopedic Surgery at McGuire General Hospital in Richmond, Virginia. During his period of time in the service he personally operated 94 cases requiring bone graft surgery with three infections and one refracturing of the graft that

From The Department of Surgery, University of Illinois, Cook County Hospital Fracture Service.

required a second grafting of the area. This made a total of 4 failures out of 94 cases. All of these operations were done in former compound infected fractures, in many instances with a substantial amount of loss of soft tissue, which in itself adds a grave element of danger.

Pre-Operative Requirements. From experience gained in civilian life a number of the fundimental principles of bone graft surgery were learned. These principles were employed on the battle casualties in the general hospitals throughout the country. Certain requirements had to be met as one gained more and more experience. With the advent of chemotherapy many things could be done in bone graft surgery which prior to this age were prohibitive or impossible.

The three pre-operative requirements which the author feels were most essential are as follows:

1. No drainage should have existed in the operative field for a minimum of at least three months. In civilian life prior to the advent of sulfa drugs and penicillin, no attempt at bone graft surgery was done under a minimum of nine to twelve months from the cessation of drainage, but with the use of these drugs it was found that operative intervention could be undertaken in a minimum time of three months after the wound had stopped suppurating.

2. It is imperative that good skin and subcutaneous tissues cover the area to be grafted. Unless there is good skin and subcutaneous tissue the underlying implanted bone graft will not have an opportunity of becoming revascularized and becoming living bone instead of a foreign body. Fortunately in most general hospitals plastic surgeons were available and in addition most of the orthopedic surgeons became very skilled at swinging skin grafts of the pedicle or flap type and most of them became very good at the use of the Paget's dermatone, so that large areas could be grafted without too much difficulty.

3. Adequate pre and postoperative penicillin and sulfa drug therapy must be given in all cases. It was our procedure to give all patients 90 grains of sudfadiazine a day for 72 hours prior to surgery and for 14 days postoperatively until such a time as the sutures were removed and the wound clean. In addition pencillin was given, 25,000 units every three hours, during the same period of time. Under the screening of sulfadiazine and pencillin it was the author's impression that these cases did far better than similar cases, done in civilian practice.

Mechanics Involved in Bone Graft Surgery. The type of grafts that were used are three:

1. Cancellous bone grafts from the wing of the ilium. These were used to fill in large bone defects where mechanical stability was not required.

2. Tibial bone grafts were used when large bone defects had to be bridged and mechanical stability was necessary. The author preferred the use of the crest of the tibia in all cases where strength plus massive bone graft was necessary such as in the femur or in the humerus. Grafts taken from the central portion of the tibia were used when a massive amount of bone was necessary, yet strength was not so essential to keep the graft from refracturing. This was found to be true in fractures such as the radius, ulna and tibia.

3. Fibular grafts were used in a number of cases where large defects existed in the humerus or femur as this gave an excellent bone in order to bridge spaces of five and six inches. In some instances fibular grafts were used in conjunction with tibial grafts from the other leg. It was found that the fibula could be sacrificed most extensively provided of course that one did not come within three inches of the external malleolus and that one did not approach the head of the fibula in the area where the external peroneal nerve was found. This gave grafts as long as seven to eight inches if necessary, to be used to restore an entire shaft of one of the smaller bones such as the radius or the ulna.

In some cases a combination of the three above mentioned grafts were used depending on the type of defect which had to be filled.

In order to gain the maximum efficiency of the graft and in order to obtain the greatest percentage of takes, certain basic mechanical and physiological principles had to be accepted and followed. It is a well recognized fact that a bone graft which is snugly fit into a bed that has been accurately made for its reception will do much better than a graft which is purely laid on the surface of a long bone. There is no question but that maximum bone contact is essential between the host bone and grafted bone if one is to obtain the greatest percentage of successful takes.

The bone graft must be massive enough to give an adequate mechanical support all by itself. This

means that the grafted piece of bone must have, in itself, not only bone in which to produce a complete repair of the defect, but in itself, must be strong enough that by mechanical fixation with screws to the host bone, it will give all of the stability necessary. Dr. Dallas Phemister showed many years ago that if a bone graft is to be done, it must be massive enough to be of some functional benefit. The use of several small grafts is fallacious and the use of a small graft with metal plate, in itself, is an admission of the operator that he does not feel that the graft is large enough to be of mechanical value and for this reason a plate is inserted.

The general conformation of the grafted bone must, by necessity, tend to re-establish the normal contour of the host bone. By so doing there is the least amount of interference with the overlying muscles and tendons during their action in locomotion or motion of the extremity. Sharp corners are to be avoided and bulky masses of bone directly below the skin and subcutaneous tissue are most harmful and do not do well as far as revascularization and viability is concerned.

Firm immobilization of the grafted bone to the host bone adds materially to shortening the time necessary for revascularization and firm bony union between the bones. This can best be obtained by firm contact maintained by the use of metallic screws. Gaps between the grafted bone and the host bone interfere with the revascularization and the unification of the bone into one solid mass. It is much the same principle as is involved in the transplantation of creeping bent grass. If there is space between the underlying bed in the transplanted grass, the successful takes are not as good as if the space is completely obliterated and the roots of the grass are brought in firm contact with the underlying earthen bed.

It is a well known principle of carpentry that if two pieces of wood are to be drawn firmly together and held so that glue will firmly unite both pieces as one solid piece of wood, it is necessary to draw the two pieces of wood in firm contact. This is obtained by drilling a pilot hole through both pieces of wood so that the threads of the screw can grip firmly into the material. Then by the use of a larger drill, that is the size of the shank of the screw, the proximal piece of wood is drilled a second time so that when the screw is inserted there is no actual gripping into the proximal piece of wood and the threads engage only in the distal fragment. Then when the screw is firmly twisted into the distal piece of wood, the shoulder of the screw head draws the proximal piece of wood by firm pressure against the distal piece of wood. In this manner only, are we able to utilize the principle of vise action to draw the pieces together. If the threads engage both the proximal and distal piece of wood there is no actual drawing together power when the screw is firmly set, but it is simply immobilization at a fixed distance between the two pieces of wood. This principle has been known for many years by carpenters. Unfortunately this basic principle is either not known or totally ignored by a large number of men who do occasional bone surgery. For this reason it is necessary in doing bone grafts when it is hoped to draw the grafted and host bones together, to drill not only a pilot hole but also a shank hole through the proximal piece of bone in order to utilize this principle of vise-like action to draw the grafted bone against its host.

The author's experience has been that these grafts take far better than those where the graft simply laid in contact with the host bone and then by direct soft tissue pressures hope to produce a bony union from bone growth between the grafted and host bones.

Post Operative Care. It is most important that after a fine piece of bone graft surgery has been performed that this area be protected by external immobilization. It is the author's experience that in most instances, the best form of immobilization is a plaster paris cast. The sutures are as a rule removed on about the fourteenth day and then a snug fitting cast is applied to the extremity. It must be remembered that long immobilization is most important. Many a good graft has been lost because of the over enthausiam and optimism of the operating surgeon. Grafts to the femur require at least seven to nine months to give the strength which is necessary before external support can be removed. In femoral grafts it has been the writer's experience to require immobilization in plaster somewhere in the vicinity of four to six months and then permit the patient to have physiotherapy and use of the

leg on a Pierson attachment to a Thomas splint in order to immobilize the extremity as much as possible. Then the patient is permitted to be up and around with a long leg caliper and this is used until clinically and radiographically it is believed to be safe to premit the removal of the brace.

In fractures of the humerus, immobilization and guarded protection is necessary for at least six months if a large graft has been inserted. In fractures of the radius and ulna usually three to four months of immobilization is adequate with a warning that no heavy work is to be done with the extremity for at least three to four months thereafter.

In the tibia, as a rule, six to nine months is required before unprotected weight bearing is permitted.

It must be clearly understood that in bone graft surgery where good immobilization has been applied with a large graft, there is very little callus formation as one sees, secondary to ordinary fractures with healing. In fact, there is practically no extra osseous callus visible. Only the base of the graft is found to become more homogeneous as time goes on and eventually the edge between the graft and the host bone completely disappears.

CONCLUSIONS

Pre-Operative Requirements:

1. No drainage for at least three months.

2. Good skin and subcutaneous tissue must cover the area to be grafted.

3. Adequate pre and post operative Penicillin and Sulfadiazine must be used.

4. Maximum contact of fresh bone to fresh bone is imperative for a maximum number of successful takes.

5. Grafts must be massive enough to give adequate support.

6. General conformation of the grafted bone to the host bone is essential.

7. Firm immobilization of the graft to the host bone is imperative by the use of metallic screws.

8. Long immobilization and careful protection of the graft is necessary months after surgery has been performed.

By following the above basic principles the incidence of successful takes of massive bone grafts will be surprisingly high.

IMMUNIZATION OF CHILDREN WITH INFLUENZA VIRUS VACCINE

Clinical Observations

R. E. DUKES, M.D. AND
JAMES B. GILLESPIE, M.D.
URBANA

The effectiveness of influenza virus vaccine has been evaluated in a number of published reports. For many years the etiological agent of the disease, influenza, was unknown and diagnosis was on the basis of clinical characteristics. In the studies of Smith, Andrews and Laidlaw[1] and Francis,[2] types A and B viruses were identified in throat washings from patients with typical symptoms of the disease. Stuart-Harris[3] states that influenza virus B resembles A in many of its properties, but is absolutely distinct in antigenic properties.

Francis and his associates,[4] using subcutaneous injections of a type A and B vaccine for vaccination of human subjects, produced an infection later by spraying active type A virus into the nostrils of vaccinated individuals and non-vaccinated controls. Clinical symptoms developed in 50 per cent of the non-vaccinated controls, in 32 per cent of those vaccinated four and one-half months previously, and in 14 per cent of those vaccinated two weeks before innoculation.

Antibody titres were done on all subjects prior to the induced infection and in those with low pre-infection titres, the incidence of infection was high. In a similar observation[5], using type B influenza virus for inducing infection, a clinically recognized disease was observed in 41 per cent of the non-vaccinated controls, in 7 per cent of the group vaccinated four and one-half months previously, and in 13 per cent of those vaccinated 4 weeks previously. Henle and co-workers[6] concluded from a clinical study that protection from vaccination is for at least 4 months. The enormous variation in antibody response which occurs even among those individuals who possessed similar prevaccination antibody titres has been demonstrated[7].

The Commision on Influenza, Board for the Investigation and Control of Influenza and Other Epidemic Diseases in the Army, using a vaccine prepared in the chorioallantoic sac of chick embryos determined pre- and post-vaccination

From the Department of Pediatrics, Carle Hospital Clinic, Urbana, Illinois.

titres on 92 subjects after intervals of 2 weeks, 4 months and 1 year[9]. The highest titre was noted at 2 weeks for both types A and B. The incidence of influenza in non-vaccinated controls was approximately three and one-half and eight times, respectively, more frequent than in vaccinated personnel[9, 10].

Reaction subsequent to vaccination with influenza vaccine is not infrequent. In a study during the epidemic of 1943-44 of 1791 individuals innoculated, 40 went to the dispensary because of a reaction[11]. In 1947 a fatal reaction of allergic type occurred in a child three and one-half years of age immunized by influenza virus vaccine. Egg protein was considered as possible cause for the anaphylactic death. Others considered that the fatal reaction in the reported case was probably a result of the virus rather than egg protein.[13, 14]

The studies of influenza virus vaccine effectiveness have considered young adult groups, and there have been no comprehensive reports of such studies in children. Since the results in the adult groups had been good, and because an epidemic of influenza was predicted for the winter of 1946-47, our interest in a clinical study on children was stimulated.

Immunization was carried out, except in 3 instances in the months of October, November and December, 1946. A group of 100 children was immunized with influenza virus vaccine Types A and B;[15] a group of similar size served as controls and was not immunized with the vaccine. In the vaccinated group 42 per cent were between 19 months and 6 years of age, 50 per cent were between 6 and 10 years of age, and 8 per cent were between 10 and 16 years of age. In the control group, 55 per cent were between the ages of 19 months and 6 years, 31 per cent between 6 and 10 years, and 14 per cent between 10 and 14 years. Immunization consisted of two injections of the vaccine, 0.5 c.c. at each injection, and at intervals of 1 week. In 14 children, smaller doses were given rather than the adult doses; in these instances, the children were in the youngest age periods or had severe reactions with 0.5 c.c. at the first dose. Of these 14 only one developed influenza during the winter.

A disease diagnosed clinically as influenza occurred in the Champaign-Urbana area in December, 1946, and continued through the winter months of 1947. The highest incidence of respiratory infections was in February and March, 1947. During one period of several weeks, the public school attendance was reduced approximately 50 per cent in most all grades, because of high incidence of these respiratory infections. The diagnosis of influenza infection in the immunized group was in most instances made by a physician from the clinical findings. In certain cases, the infections were regarded as influenza from the parents' description of the disease; in such cases, other members of the family who were ill at about the same time were diagnosed as having influenza by a physician.

The information essential for this study was obtained from questionnaires sent to the parents of all immunized patients. A questionnaire was sent all patients several weeks subsequent to the last immunizing injection and pertained to reactions from the procedure; a second questionnaire was sent to all immunized patients in the early summer of 1947 and pertained to the occurrence of influenza the preceding winter.

Reactions subsequent to the first injection of influenza virus vaccine were frequent and Chart I indicates the relative frequency of the different systemic and local manifestations.

CHART I

REACTION TO FIRST INJECTION OF *INFLUENZA VIRUS VACCINE*

Temperature elevation	57
Local swelling	16
Nausea	9
Generalized aches and pains	7
General malaise	6
Headache	5
Vomiting	5
Fatigue	4
Anorexia	3
Sneezing	3
Convulsions	2
Restlessness	1

It will be noted that fever was the most common manifestation, occuring in over 50 per cent of those immunized. Hyperpyrexia was most frequent in the children less than 6 years of age, and 80 per cent of all fevers which exceeded 103° were in this youngest age group. The two children who had generalized convulsions with the hyperpyrexia were from the group less than 6 years of age. Only 12 patients had reactions

following the second injection and in all instances these were mild. Fourteen of the immunized children were known to be allergic and 5 of these had mild to moderately severe reactions.

In Chart II the incidence of influenza in immunized and control groups is compared.

CHART II
INCIDENCE OF INFLUENZA IN THE IMMUNIZED AND CONTROL GROUPS

	IMMUNIZED			CONTROL		
		Incidence			Incidence	
Age Group	Total	Influenza		Total	Influenza	
		Number	%		Number	%
Under 6 years age	42	6	14.3	55	21	38.2
6 to 10 years age	50	19	38.0	31	10	32.2
10 to 15 years age	8	3	37.5	14	5	35.6
Total	100	28	28.0	100	36	36.0

In this series the incidence of influenza in the immunized and control groups was not unlike except for the youngest age group, in which incidence of immunized was much less frequent in the immunized children. Conclusions from this interesting observation are not to be made in such a small series where other than immunological factors are also concerned. It is likely that the children in the youngest groups may have had less exposure to respiratory infection since many were not in school; this could not account for disparity of incidence in the immunized and control groups, however. Generally, the effectiveness of immunization was not impressive in this limited series.

COMMENT

No conclusions have been drawn from our observations as to the effectiveness of influenza virus vaccine A and B in the immunization of children of pediatric age. We were impressed by the frequency of reactions from the injections and the incidence of rather severe reactions in the younger aged children. Perhaps a dosage of vaccine dependent on body weight, as with typhoid vaccine, would reduce the number and severity of reactions. Further studies of larger series of children are necessary to accurately evaluate the effectiveness of the vaccine and to determine proper immunizing doses.

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RHINOPLASTY COMBINED WITH RECONSTRUCTION OF RECEDED CHIN

OSCAR J. BECKER, M.D.
CHICAGO

The increased popularity of nasal plastic surgery has created a desire to improve other facial features, namely the forehead, chin and maxilla, which may be out of proportion to the newly reconstructed nose. Frequently, failure to consider these component features of the profile will mar an otherwise perfect rhinoplasty and

From the University of Illinois College of Medicine. Department of Otology, Rhinology and Laryngology.

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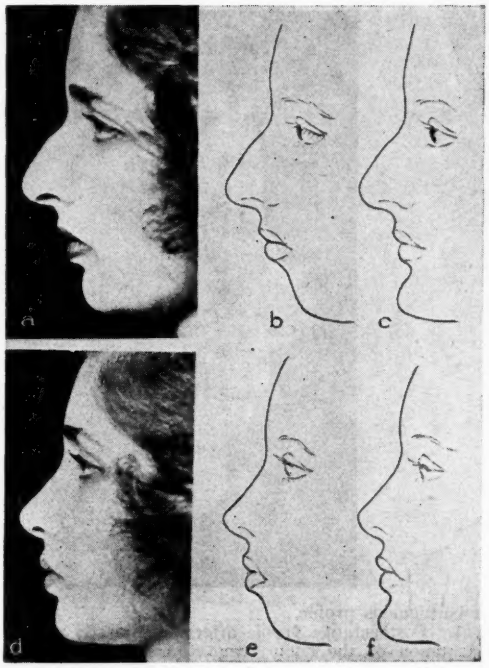

Fig. 1. (a) and (d). Same patient before and after rhinoplasty. Normal nasal and chin relationship illustrated.
(b). Sketch of preoperative nasal deformity but with a receding chin.
(e). Sketch of corrected nose with receding chin, illustrating how a smaller nose accentuates the recession of the chin thereby making it necessary to correct the chin at the same time that the rhinoplasty is performed.
(c) and (f). The same patient before and after a rhinoplasty but with a protruding chin in both sketches. This illustrates how the protruding chin appears less obtrusive with a smaller nose.

result in a nose which appears unnatural for the particular individual. The most commonly associated defect which distorts the profile line is a receding chin. Correction of the chin should be combined with the rhinoplasty as one operative procedure whenever feasible.

The methods of determining the amount of correction necessary to build a normal nasal-chin relationship are by the use of sketches, casts and measurements of the face. A method which I have employed to advantage has been to make a sketch of the profile on the back of a photograph while it is held up to a light or placed on a shadow box.[1] By shading out the amount of nasal bone and cartilage to be removed or added, as the case requires, and by sketching in the necessary amount of implant needed to correct

Fig. 2. (a). Patient with prominent nose and protruding chin.
(b). After nasal plastic surgery. Because of the smaller nose the chin appears less protruding.

the retrusion of the chin, one may form a fairly accurate picture of the end result.

Other methods of planning the correction are by the use of plaster or wax casts of the face. These may be helpful as the new chin can be built up on the cast with modeling clay and an exact impression of the pattern made in dental wax or duplicated in lead. The wax or lead may be sterilized and kept on the operating table to serve as a guide while shaping the chin implant. Another method of determining chin defects of the profile line is by photognathostatic diagrams.[2] By this method measurements are made on a profile photograph to analyze the deformity in relation to maxillary protractions or retractions and alveolar defects.

I have relied on the photographic sketches, (figures 3 and 4), plus direct measurements on the face preoperatively rather than on the use of casts. The preoperative sketch is placed on an x-ray shadow box in the operating room to act as a guide during surgery. To further insure accuracy in determining the size of the implant needed, the preoperative measurements, which have previously been taken directly on the patient's chin, are noted on the sketch so that reference to these figures are available during the operative procedure.

The chin and nose must be considered together and the effect of a change in one component of the profile should be in direct relation to the other. A receding chin may at first glance give the impression that a major correction of the nose is indicated, (figure 1b). After sketching the

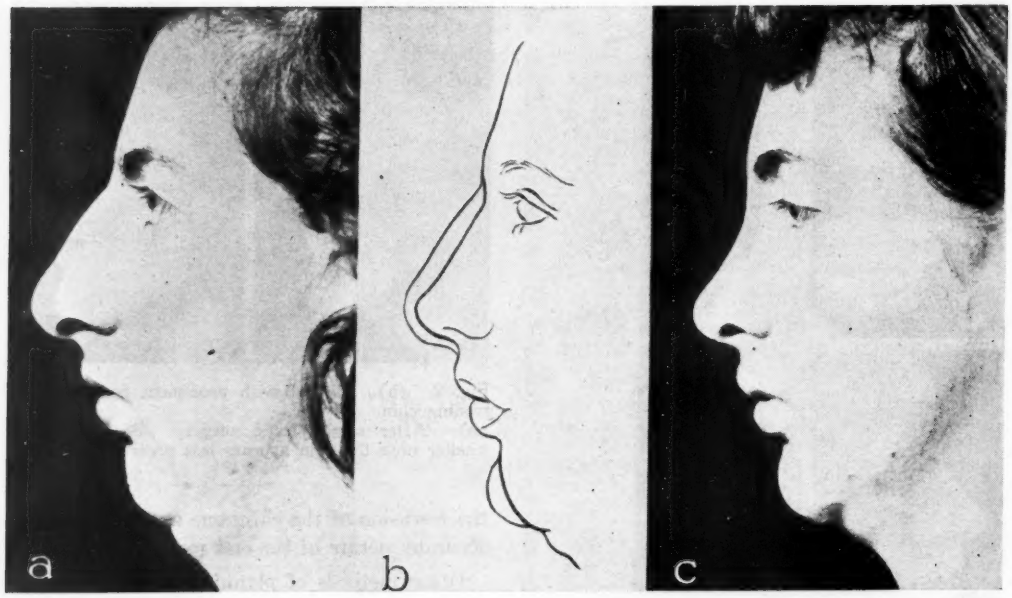

Fig. 3. (a). Preoperative profile of prominent nose and receding chin.
(b). Sketch made preoperatively to determine the amount of nasal and chin correction necessary to attain a harmonious profile.
(c). Postoperative profile after nasal plastic and implantation of the hump removed from the nose into the chin.

new chin line on the photograph one may find that the correction of the nose may not necessarily be as drastic as was first believed to achieve the desired end result. The converse may be true in a slightly prognathic jaw, (figure 1c). The effect of shortening the nose in a case with a receding chin which has not been corrected, is to emphasize the disproportion in the profile line, (Figure 1e). The converse is again true in the prognathic jaw; with a shorter nose the jaw appears less protruding (Figures 1f and 2). In other instances a chin may appear receding because of a protruding superior alveolar process and maxillary spine or protruding upper teeth.

The methods employed in correcting a receding chin are varied and dependent on many factors. During the period of puberty and early adolescence the receded chin is almost always associated with malocclusion of the teeth and is an orthodontic problem. If the patient is seen early, even before the permanent teeth have erupted, proper orthodontic treatment will correct the majority of these cases. In the case of late adolescents or adults with a retruded chin combined with marked malocclusion, procedures involving various types of osteotomy of the horizontal or ascending rami of the mandible are necessary. By these procedures the jaw may be lengthened or advanced. Cases involving other functional disturbances as temporo-mandibular ankylosis require cartilage or cartilage and fascia implants inserted behind the heads of the condyles or section of the ascending ramus and creation of a false joint. Scars around the chin with secondary deformity of the jaw may require skin grafts both externally and intraorally with insertion of prosthetic appliances attached to the teeth. Other conditions may require a combination of these procedures supplemented by cartilage or bone implants anterior to the mandible.

However, these procedures are not within the scope of this presentation, which is confined to a discussion of receding chin without functional disturbance and which is associated with a nasal deformity. This includes receding chin without malocclusion of the teeth and patients in whom the malocclusion, if present, is not functionally disturbing. In these patients the correction is concerned primarily with the use of various substances employed to build out the chin contour and restore a normal profile line in harmony with the reconstructed nose.

An array of substances have been used and advocated as grafts for constructing a new chin.

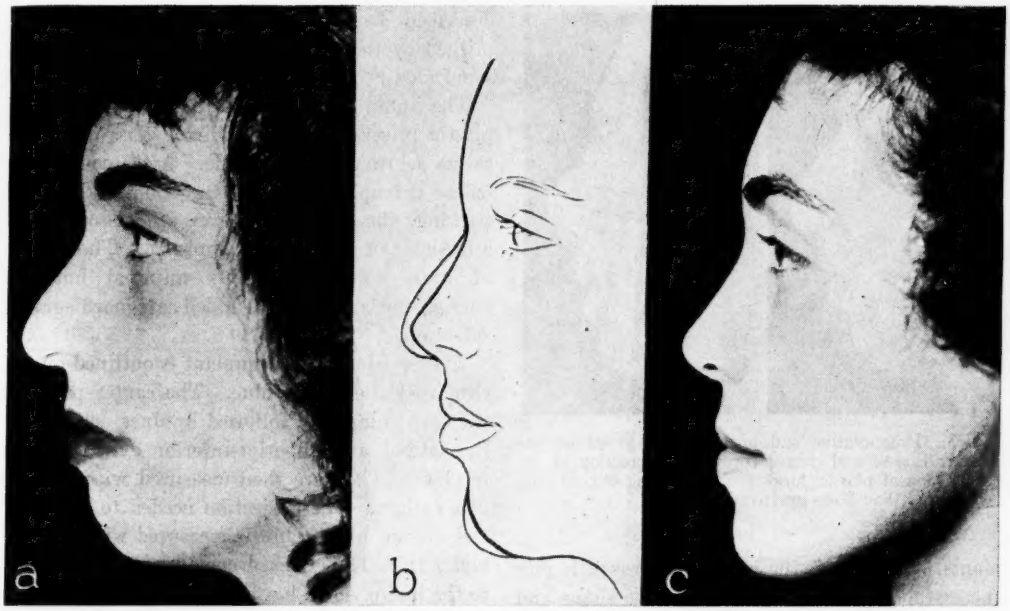

Fig. 4. (a). Preoperative profile of prominent nose and receding chin.
(b). Sketch made preoperatively to determine the amount of nasal and chin correction necessary to attain a pleasing profile.
(c). Postoperative profile after rhinoplasty and implantation of the hump removed from the nose into the chin.

They may be divided into alloplastic and autoplastic materials. The alloplastic substances are those which morphologically and structurally are foreign to the body tissues. Those more commonly used in recent years have been ivory, celluloid, plexiglass, acrylics, and various metals, including vitallium and tantalum. The autoplastic substances are materials obtained from the patient's own body such as cartilage, bone and fat-dermal tissues. Preserved cadaver cartilage or isografts are commonly employed and would come under a separate classification of homogenous substance.

Each of the substances mentioned has its advantages and disadvantages. The advantages of alloplastic materials are in their availability without subjecting the patient to an operation for obtaining it, and in the ability to mold the material pre-operatively. The diadvantages are that they do not withstand trauma as well as autoplastic substances and may induce local irritation, important factors to consider in chin implants. They may, after the slightest trauma, set up a reaction in the tissues, become infected and are extruded.

Of the autoplastic materials, rib cartilage and iliac bone have proven very successful. Fat-dermal grafts have also been used with good results. The advantages of the autoplastic substances lie in their ability to become integrated into the tissues and are sturdy enough to withstand infection and trauma. The disadvantage claimed for autogenous cartilage is the possibility of curling or warping of the graft. This is obviated by using cartilage which has been "fixed" by boiling and cooling, (New and Erich[3]), thereby diminishing the elasticity of the cartilage and its tendency to warp.

The substance which I have employed to greatest advantage in cases of combined rhinoplasty and receded chin has been the use of the osteocartilaginous hump removed from the patient's nose during the rhinoplastic operation. In the majority of my cases sufficient hump material was available to properly correct the chin. Only in cases where the hump was too small was it necessary to use autogenous or homogenous grafts. In cases of a small hump, septal cartilage removed during the submucous resection was united to the hump with a catgut suture thereby giving the implant sufficient height to build out the chin. Aufricht[5], thirteen years ago, first described the use of the nasal hump for chin im-

Fig. 5. Preoperative and postoperative views of patient with nose and chin deformity. Correction of the nose by nasal plastic surgery and building out of chin contour by iliac bone graft.

plants. The use of the hump has proven highly successful in my series of cases. The shape and size usually conform very well to the contour of the chin so that there is almost no necessity for shaping or trimming the graft. Patients observed for over five years revealed practically no absorption of the graft.

In cases where insufficient hump material was available for the chin implant I have used preserved homogenous cartilage, also known as isografts. It has been an excellent material for chin implants in most of my cases but in a few instances there has been partial or complete absorption of the graft during periods ranging from one to six yaers.

Isografts were first described by Pierce and O'Conner[4] who, at the time of their original report, had observed cases for five years with no untoward results. It is acquired from persons who have died from accidental causes and reveal no pathology or infection. The cartilage is stripped of its perichondrium under sterile conditions and refrigerated in an aqueous solution of merthiolate 1:1000 to four parts of sterile saline. It may be stored indefinitely but should be cultured each time before it is used. In my series there have been a minimal number of cases which had either reactions or infection from the cartilage, and they have withstood trauma remarkably well.

TECHNIQUE

The details of the rhinoplastic portion of the combined nose and chin plastic will not be described. Essentially, the rhinoplasty is accomplished by the Joseph technique with some personal modifications.

The hump which is removed during the nasal plastic procedure is placed in a glass of sterile saline solution and set aside. After completion of the rhinoplasty and the insertion of the nasal packing, the surgeon's gloves are changed and a fresh set of instruments employed. The danger of cross contamination is minimal but the changeover is made as an added safeguard against infection.

The position for the implant is outlined on the chin with methylene blue. The center point of the chin is marked, followed by lines delineating the lateral and superior-inferior extent of the implant. They are then measured with the aid of a caliper. The projection needed to build out the contour of the chin is measured with a centimeter rule. These measurements are then applied to the hump which has been removed and in cases where sufficient projection is not attainable, a section of septal cartilage is sutured to the hump. The hump is cleansed of periosteum and mucosa and trimmed to the proper proportions.

The chin area is anesthetized with one percent procaine and adrenaline injected along the natural fold beneath the chin and lateral and superior to the region of the proposed pocket which is to receive the implant. A small incision is then made in the chin fold and with a sharp double edge Joseph knife, the bone of the mandible is engaged, a subcutaneous pocket dissected and the periosteum elevated, (Figure 6). The undermining of the skin should not be superficial or too extensive since this may lead to displacement of the graft, as no internal fixation sutures are applied. All bleeding vessels must be controlled since hematoma formation may impair the viability of the graft. The graft is then inserted with slight pressure and fitted snugly. Three black silk sutures are inserted to close the incision and external pressure applied with a bandage.

In patients in whom the preoperative measurements and sketches reveal that an insufficient amount of material is available in the nasal hump, plans are made in advance for the use of an isograft or autogenous rib cartilage. Since most patients, when given the choice, are unwilling to undergo an operation on the chest for obtaining rib cartilage, the majority of my cases were corrected with isografts.

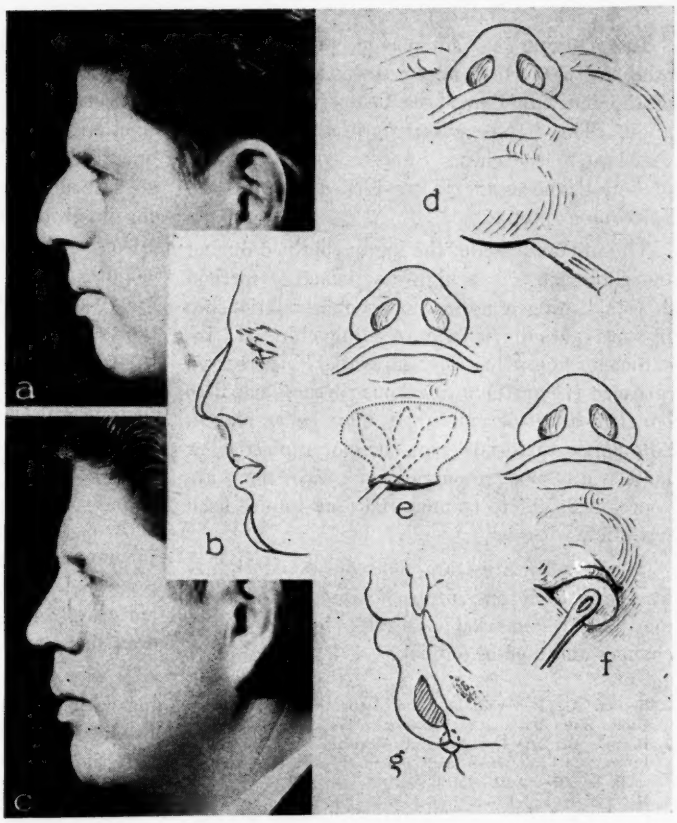

Fig. 6. (a). Prominent nose with receding chin.
(b). Sketch made preoperatively to determine amount of nasal and chin correction necessary to attain desired profile line.
(c). Postoperative view after correction by rhinoplasty and implant of hump in the chin.
(d) (e) (f) and (g). Technique used for implantation of hump, or for cartilage or bone graft anterior to the mandible for correction of receding chin.

In those patients with a pronounced manibular retrusion associated with moderate degrees of malocclusion, more than one thickness of rib cartilage may be required. In such instances fixed autogenous cartilage is employed and two sections of cartilage are united together. In the utilization of such large grafts some method of internal fixation is necessary; the simplest procedure is the use of catgut sutures through the periosteum and over the implant. In these cases a large incision is made in the natural chin fold extending to the submaxillary regions bilaterally and the skin reflected up over the chin so that proper placement and fixation of the graft is accomplished. One should be careful not to cut past the sublabial sulcus and enter the oral cavity since contamination would almost be certain.

In the case of a protruding superior alveolar process and maxillary spine or protruding teeth the treatment involves extraction of the protruding teeth and resection of the projecting superior maxilla. After healing an artificial denture is worn.

In patients with extreme retrusion and marked malocclusion a proper cosmetic correction will not be attained by a chin implant alone, but must be supplemented by further procedures. These are the insertion of a prosthetic appliance, which is attached to the lower teeth, into a previously prepared skin pocket between the lower lip and alveolar process. In other instances osteotomy and advancement of the mandible may be indicated.

From a psychological standpoint we are prone to consider many of the deformities under discussion as trivial, yet the fact remains that in the patient's estimation the defect or defects are of extreme importance. It is gratifying to see the improvement in personality and mental outlook of many of these patients post-operatively. Many of us who are mentally capable of rising above some defects may still be sensitive about them and suffer inwardly.

CONCLUSIONS

In planning a rhinoplastic procedure, the other features which may distort the appearance of the individual must be taken into consideration. This is especially true of the relation of the nose to the chin. Simultaneous correction of both is necessary to produce a natural and harmonious profile.

The implantation of the hump obtained during the rhinoplasty is a highly satisfactory method of establishing a normal nasal-chin relationship in most patients with a receding chin. If insufficient hump material is available, perserved cartilage (isograft), autogenous rib cartilage, iliac bone or a fat-dermal graft may be employed. Alloplastic materials such as ivory, plastics or metals are not recommended since they are poorly resistant to trauma and may induce local irritation.

These deformities are not considered lightly by the patient and proper correction of them may affect remarkable results in personality changes and mental outlook.

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TUBERCULOSIS IN THE MENTALLY ILL AND DEFECTIVE

M. Pollak, M.D., Hans Neuer, M.D., and Heinz Goldschmidt, M.D.

PEORIA AND LINCOLN

A Preliminary Report

Because the prevalence of tuberculosis in the mentally ill and defective is a long established and well authenticated fact, the mental institutions of the State of Illinois have always paid particular attention to the combat of this disease. As early as the year 1904, the late Dr. George Zeller, that sturdy pioneer in the field of psychiatry, whom many of us here assembled so well remember and esteem, established his "tent colony" for the special care of the tuberculous psychotic at the Peoria State Hospital[1]. The erection of the "colony" and the treatment practiced in it, segregation, fresh air, rest, and good food, followed the up-to-date ideas of the day in phthisiotherapy. Following this example, other institutions have also assigned their tuberculous patients to special units. Subsequently, when the importance of the x-ray in our diagnostic procedures was widely recognized and accepted, most of the State institutions were equipped with an x-ray laboratory, serving with their original equipment a useful purpose until recent date. Chest radiograms, however, were used only sparingly. No wonder that in most instances they only confirmed the clinical diagnosis instead of being instrumental in the discovery of early tuberculosis. Such discovery, as is well known, requires the systematic x-ray survey of apparently well individuals in whom the disease is not even suspected.

It was in recognition of this fact and in keeping with the fine tradition of the Department of Public Welfare in the fight against tuberculosis that the first tuberculosis survey in the Illinois mental institutions was conducted by Pollak, Hummel, and Turow[2] from October 1, 1937 to December 22, 1939 at the Peoria State Hospital, which at that time was under the management of Dr. Walter H. Baer. Dr. Baer's co-operation in the survey and sustained and continued interest in the fight against tuberculosis has contributed much to tuberculosis control in our mental institutions. This survey corroborated the findings or similar studies, reported upon at that time from a few mental institutions in this country and in Canada[3,4,5,6,7,8], measured quantitatively the magnitude of the tuberculosis problem in the State mental institutions, pointed up the shortcomings of the methods used in the combat of this disease, and made appropriate recommendations for the introduction of adequate control measures.

In 1940, the late A. L. Bowen, Director of the Department of Public Welfare, appointed a Medical Advisory Committee on Tuberculosis, consisting of Drs. Baer, Murray, Sommer, Sweany, Head, Bettag, Kegerreis, and Pollak. Under the guidance of this Committee, which still retains its original membership with the exception of

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From the Lincoln State School and Colony, Lincoln, Illinois, and the Peoria State Hospital, Bartonville, Illinois. Read before the Physicians' Association, Department of Public Welfare, in conjunction with the 107th Annual Meeting of the Illinois State Medical Society, May 13, 1947.

Dr. Sommer, though new members were added to it, an up-to-date tuberculosis control program covering all State Mental Institutions was evolved. The successors of Mr. Bowen, Mr. Brandon and the present incumbent, General Poust, have made this program effective. At present under the direction of Dr. Ernest Teller, Supervisor of Tuberculosis Service, control work is conducted in all institutions. Newly admitted patients and new employees are routinely x-rayed, the tuberculous properly segregated and treated, and all the patients and employees re-rayed, if at all possible, at least once annually. In the meantime also great progress has been made in the improvement of various tuberculosis units. While because of the prevailing shortages in personnel and material, much remains to be done, the State Hospitals of Illinois may justly be proud of the signal advancements they have made in the control of tuberculosis.

Because we believe that you, the members of this organization are very much interested in this important program conducted in your institutions and because you can do much to make this program most effective, we would like to discuss with you some of the findings of a study we are conducting at present at the Lincoln State School and Colony and the Peoria State Hospital. In both institutions we have under review the cases admitted to the Tuberculosis Units because of tuberculosis, or for observation, since this program there was instituted. While our study is far from being completed, and we are not prepared to present the final statistical data, a few of our findings have been well crystalized so that we may submit them for your consideration.

THE SITUATION AT THE LINCOLN STATE SCHOOL AND COLONY

We have studied the records of the patients who were cared for on Drake Hospital, so named in honor of the memory of Dr. C. St. Clair Drake, former Superintendent of the Jacksonville State Hospital, the tuberculosis unit, from January1, 1943, to March 1, 1947. We have taken this time interval because unfortunately the x-ray films of patients who died or were discharged earlier were destroyed because of lack of filing space. Even so the radiograms of nine patients, who have died during the period of this study and are included in it, could not be found.

Originally the radiograms were read and the diagnosis was made by various men, members of the resident staff, radiologists, and tuberculosis control officers. We have made our own diagnosis in each case in the light of the information gained from the serial films and the clinical course. In the cases which died we have compared our findings with the cause of death as given on the death certificate. In a few instances, the radiograms taken shortly before death did not warrant the diagnosis of pulmonary tuberculosis, in others tuberculosis was not given as the cause of death, when far advanced disease was shown. Corrections were made according to our own diagnosis. In the nine cases where radiograms were not available, tuberculosis obviously was accepted as the cause of death.

From January 1, 1943 to March 1, 1947, 221 patients (126 males and 95 females) were cared for on the tuberculosis unit. Of these patients 104 (56 males and 48 females) were transferred back to other divisions and one minimal active case to a public sanatorium; 69 (43 males and 26 females) have died, and 47 (26 males and 21 females) were still on the tuberculosis unit on March 1, 1947.

According to our interpretations, 56 (34 males and 22 females) in the group transferred back to other divisions had no tuberculosis, as was also the case with 16 (9 males and 7 females) in the group which died. Of the 47 patients on the Tuberculosis Unit on March 1, 1947, 2 had no tuberculosis, 15 were in the minimal stage, 16 were moderately and 10 were far advanced and 4 had pleurisy with effusion, on admission. While on the Unit, definite improvement was observed in the condition of 24 of these patients, 6 have shown the well known course of improvement interspersed with remissions, the condition of 12 was progressive and in 3 it was unchanged.

During the period covered there were 82 males and 65 females, or 147 patients in the institution who had active tuberculosis. Of this group 53 (34 males and 19 females) died of the disease, giving a mortality ratio of 36%; the disease of 48 or 32.6% (22 males and 26 females), had become arrested and 45 or 30.6% were still under treatment.

Analyzing the condition on admission to the Tuberculosis Unit of the 44 patients who have died and whose radiograms were available, we

found that one each had minimal and moderately advanced pulmonary tuberculosis, pyopneumothorax, peritonitis, and spondylitis, 2 had pleurisy with effusion, 3 had miliary and 34 far advanced tuberculosis. In 28 of the 36 pulmonary cases, cavitation could be seen on the radiogram either at the time of admission or later. In the remainder no such diagnosis could be made.

The time interval between diagnosis and death in the 42 chest cases for which radiograms were available was as follows: — in 6 it was less than three months, in 2 it was from three to six months, in 12 from 6 months to one year, in 18 between one and two years, and in 4 from three to five years.

The patients on the tuberculosis unit receive standard sanatorium care. Rest periods are observed as far as possible with the type of patients we have to deal with, artificial pneumothorax and operations on the phrenic nerve are resorted to whenever indicated and permission obtained. No thoracoplasty has been performed because of lack of personnel for post-operative care.

THE TUBERCULIN SURVEY

For the test we have used 0.10 mgm. O. T. (Saranac Lake) by the intradermal method.

Thus far we have tabulated the results in 1,057 female patients, as follows:

Age Group	No. Tested	Positive	% Positive
0-9	46	5	10.8
10-19	282	72	25.5
20-29	281	113	40.1
30-39	208	134	64.4
40-49	143	96	67.1
50-59	51	41	80.4
60 and over	15	12	80.0
Unknown	31	24	77.4
	1,057	497	47.0

THE STUDY AT THE PEORIA STATE HOSPITAL

Here too we are reviewing the cases as we do at Lincoln. But our primary interest is directed towards the effects of the various forms of shock and fever therapy on the development of tuberculosis on those patients who show evidence of primary or so-called childhood tuberculosis. Thus far we have reviewed the chest radiograms of a considerable number of patients who have been subjected to shock therapy. We found that almost all of them had a chest X-ray before their treatment was started and that these show no signs of active pulmonary tuberculosis, in accordance with the policy established in 1939. The tri-monthly follow-up radio-grams, however, were often not taken because of the exigencies of the war and its aftermath. Thus far, we have found only one case in which active pulmonary tuberculosis has developed about three years after the cessation of shock therapy. Recently we have given our consent that, a patient whose advanced tuberculosis has become arrested by extensive calcification prior to his admission to the hospital, be subjected to malaria therapy, because of his psychosis being grave and manifestly hopeless. We have observed considerable improvement in his mental state, but as yet have seen no signs of reactivation of his pulmonary tuberculosis.

Manifestly we are in no position as yet to give definite conclusions. Nevertheless we have gained certain impressions which we shall discuss later.

DISCUSSION

X-ray Diagnosis: — While it is generally agreed that chest radiograms are essential in the diagnosis of tuberculosis, it should not be forgotten, as an editorial of the Journal of the American Medical Association[9] pointed out recently, that roentgenology is not an exact science as yet, so that radiological diagnosis too is subject to the "personal equation" of the examiner, as is the case with many of our diagnostic methods. Many of you, no doubt, are familiar with the extremely illuminating report of the Board of Roentgenology of the Veterans Administration, published in the same issue of the Journal. To many of you, this report, divulging great divergencies in interpretation among the experts, and even by the same expert when re-reading the same film on different occasions, might have come as a surprise. To those of us, however, who follow up cases with serial x-rays and thus come face to face with our own omissions and commissions, it has only proved that even the best among us are subject to human limitations. This report detracts nothing from the value of the chest radiogram in diagnosis. It only points out its definite limitations. It has been long known that a single radiogram is not always sufficient for the diagnosis of pulmonary tuberculosis, or of any other chest condition for that matter. The report has only added new proof to this old truism. Chest radiograms constitute only one link, a most important one we may add, in the chain of our diagnostic procedures. In addition to them, however, history, physical examination,

the tuberculin test and last, but not least, the laboratory examinations should be utilized before arriving at a definite diagnosis. Even then serial x-ray films taken subsequently may lead at times to a change in our working diagnosis.

The x-ray examination of the mentally ill and defective as it was also shown by Danzer[11] presents at times considerable technical difficulties. Often it is extremely difficult to position these patients properly in the front of the film casette, so that the resulting radiogram can be interpreted only with reservations. The spinal and chest deformities, so common among the defectives, may easily present a bizarre picture puzzle which can be solved only by subsequent examinations. In our review we have noticed a considerable inclination to interpret many diverse shadows as caused by tuberculosis, when this was hardly the case as proved by subsequent serial films.

The differential diagnosis between tuberculosis and other lung involvements may be difficult at times, as the following case report illustrates: F. M., a 64 year old former coal miner, was admitted to the Peoria State Hospital on April 25th, 1940, because of chronic alcoholism, tertiary syphilis, and cardiac insufficiency. His routine chest radiogram was interpreted as showing signs of arrested pulmonary tuberculosis. He left the institution on April 22nd, 1944. On November of 1945, he was readmitted. The chest radiogram was unchanged. Subsequently he repeatedly expectorated considerable amount of blood and he died a few days after such an episode on March 3, 1946. In view of the x-ray findings and the hemoptysis it was believed that he died of pulmonary tuberculosis.

At this time, the chest radiogram was reviewed by one of us who saw on the films signs of extensive anthracosis, but none of tuberculosis. The post-mortem examination revealed a primary cancer of the pancreas with metastases to the liver, marked anthracosis of the lungs and bilateral adhesive pleurisy. The cause of the hemorrhage could not be ascertained, but it was believed that it must have originated in the stomach because its mucosa was markedly hyperemic.

The typical signs of healed primary tuberculosis have often led to the segregation of the patient on the tuberculosis unit. Such practice must be considered dangerous, because it exposes the patient to the hazards of reinfection, leading to a serious disease. Active pulmonary tuberculosis among children is relatively rare. When it occurs, however, it may take a florid course, as illustrated by the following case: C. P. was admitted to the Lincoln State School because of mongolism on September 8, 1933, at the age of two years. In December of 1946, he developed cough, spiked fever and started to lose weight. His radiogram taken on January 16, 1947, showed far advanced pulmonary tuberculosis with cavitation in the left upper lobe. He was immediately admitted to the tuberculosis unit where he died on January 29th, 1947. Post-mortem examination confirmed the diagnosis, and the histological examination of Dr. Josephy corroborated the pathological findings. Miliary tuberculosis is relatively more frequent in children than in adults, as shown by the three patients in our group who died of this form of the disease.

While in the vast majority of instances tuberculosis attacks the lungs, we should not forget the existence of extra-pulmonary involvements. At times, it may be extremely difficult to detect such instances, as may be seen from the following case report: R. V. 28 year old male was admitted to the Lincoln State School on November 8th, 1936, because of mental difficiency. In October of 1945 he became jaundiced. In April of 1946 the liver was found to be enlarged. It was believed that the patient was suffering from obstructive jaundice and an exploratory laparotomy was performed on July 13th of 1946. The gall bladder however, was found to be normal. Prior to the operation, on July 10, 1946, a chest radiogram showed a wide mediastinum, but no other pathological changes. The mediastinal change was believed to be due to a substernal goiter. The patient died on February 3, 1947.

The post-mortem examination disclosed a large mass the size of a small apple extending from the ribs on each side at about the center of the thoracic cage, markedly enlarged mediastinal and mesenteric glands, dense nodules in the liver, millet seed sized nodules in the spleen and kidneys, and a tumor like mass the size of a quarter in the calvarius. It was believed that we were dealing with a sarcoma of the ribs giving rise to the metastases found in the other organs. We were greatly surprised to learn from the histological report of Dr. Josephy that all the changes

in the viscera were due to tuberculosis, very likely originating in the glands of the mesentery, and those in the brain to hemorrhagic softenings contained calcified nerve cells. The latter lesion might have been due to a trauma suffered during birth.

Laboratory Examinations: We would like to underscore the importance laboratory examinations play in diagnosis and enter our plea that in our hospitals greater attention be paid to the clinical laboratory, particularly as far as technical personnel is concerned. As Dr. W. G. Murray, Superintendent of the Dixon State Hospital emphasized in his paper presented before the 1945 Annual Meeting of the American Association on Mental Deficiency[12] "Illinois like many other states has been so busy trying to give them (the mentally ill and defective) care, treatment, and education, that scientific investigation, which might reduce the influx, has been neglected. The influence of this Association should be brought to bear in an effort to establish modern laboratories in all institutions for the mentally deficient." We submit that the clinical laboratory is just as essential to accurate diagnosis, as it is to scientific investigation. Moreover, as far as tuberculosis is concerned, it is only by laboratory examinations that we can determine whether or not the disease of a given patient is or is not contagious. The knowledge of this fact is an important guide in the treatment of the patient, and also determines whether he is or is not a menace to his environment should he be ready to return home.

We cannot help but feel that, while higher medical standards leading to more effective treatment would require a greater financial out-lay in the beginning, they would also result in substantial economies in the long run, because more effective treatment would shorten the patients' stay in our institutions. By such shortened stay in turn the existing institutional facilities could be better utilized.

The Role of the Resident Staff: Even if the present program of taking chest radiograms of every patient on admission, and at least once annually of the whole patient population be carried out to the letter, it must be borne in mind that these time intervals were set arbitrarily, while the onset and the progress of the disease does not respect such limitations. Tuberculosis, as a rule takes a chronic course, but at times it developes with an acute onset, simulating pneumonia, or with a fairly rapid spread masking under various conditions. Under these circumstances we cannot expect that even under a strictly enforced survey program the disease will always be discovered in its early stages. Calamities in late diagnosis can be prevented only if the resident staff accepts its share of the responsibility in the combat of this important infectious disease, which is endemic in our mental institutions. By insisting that every patient transferred to the infirmary should have a chest x-ray as soon as his condition permits, that every case of pneumonia should have a follow-up film before he is released, a sufficient number of patients will be discovered who develop their tuberculosis between the regularly scheduled surveys, and it will not be permitted that the condition of these cases progress unchecked, because it was not recognized in time. General hospitals in which such a program has become the routine have amply and adequately proved that it is well worth the effort spent on it. Such a program protects not only the patient, but also the reputation of the physician who takes care of him. We would like also to insist that patients ready for discharge should have a chest radiogram prior to their leave, or at least four to six weeks previously, lest they return home with undetected tuberculosis, and endanger the health of their family and community.

Whenever patients are discovered under the above conditions, the whole unit where these patients were housed should be subjected to an immediate survey in search for other cases among their contacts. Recently for instance, at the Peoria State Hospital such a lead case led to the discovery of two additional cases, on two different occasions.

Treatment and Results: Modern sanatorium regimen and collapse therapy may just as well be applied to the tuberculous psychotic and mentally defective, as it is to mentally normal individuals. In unruly patients the barbituriates may have to be resorted to before pneumothorax refills.

The results of treatment are comparable with those achieved in tuberculosis sanatoria. While the mortality ratio observed in our small series is considerably higher than the 19% reported by Drolet[13] for the five year period 1937-1941, for the 100 large sanatoria he has studied, we

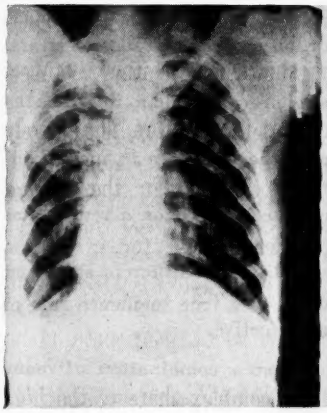

Figure 1. A. G. admitted to the Tuberculosis Unit 1/24/39. Far advanced disease with bilateral involvement. Note cavity in left upper lobe.

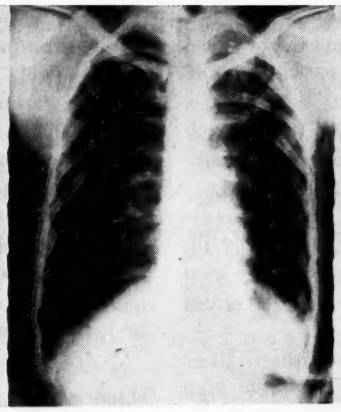

Figure 2. Same case on 7/23/40. Note marked clearing and fibrosis left upper lobe.

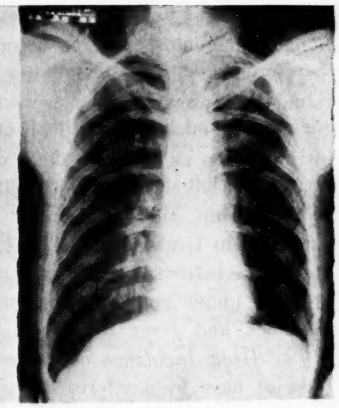

Figure 3. Same case check-up film. 12/20/45.

believe that it is of the utmost importance that in a significant number of cases under review an arrestment has been achieved. The radiograms of such a case are shown in Fig. 1, 2, and 3. No doubt, the percentage of arrestment can and will be improved upon the more rigidly the control measures will be adhered to.

Post-Mortem Examinations: As shown by the two case reports we cited, post-mortem examinations may readily prove our errors in diagnosis. At times, even these will not go far enough and only the histological examinations will render the final verdict. Serious efforts should be made, therefore, to secure a necropsy permit in every instance of death. There will be hardly a post-mortem examination performed from which we will not learn something for the benefit of our own and of our patients.

It is generally conceded that the percentage of necropsies is the best single yardstick by which the medical standards of a given institution can be measured. Experience has also shown that in institutions in which post-mortem examinations are routinely performed the medical service given to the patients is on a higher level than in those in which the staff is not interested in this most reliable check on its work. Thus post-mortem examinations will not only widen our own knowledge, but will also lead to better care of our patients, because they prevent burying our mistakes without notice.

A pathologist on any hospital staff furnishes valuable aid in diagnosis and treatment, and his presence is the greatest incentive to the practice of scientific medicine as any good hospital will attest. The services of a competent pathologist should, therefore, be available to every institution, at least on a part-time basis.

The Death Certificate: The statement on the death certificate should be as scientifically accurate as we can make it. We noted with regret the tendency to attribute tuberculosis as the cause of death, just because a patient was cared for on the tuberculosis unit. It should be remembered that patients are often transferred to this unit for observation, which in the end excludes tuberculosis. It should be borne in mind too that minimal and moderately advanced tuberculosis will not cause death without progression to the far advanced stage; and last but not least that the disease once arrested will not lead to death without reactivation, unless extensive fibrosis is present.

Tremendous efforts and considerable amount of money are spent constantly on the study of mortality statistics, because they serve as an important yardstick in measuring the effectiveness of our control efforts and the need of intensified attack. This yardstick, however, can only be as accurate as the individual death certificates on which it is based. Thus inaccurate certificates may lead to unnecessary public expense on one hand when they show exaggerated rates and to the neglect of public health needs on the other, when they do not disclose the true mortality.

Shock and Fever Therapy in Tuberculosis: It is well known that shock and fever therapy

are apt to lead to the progression of active pulmonary tuberculosis. It has become the practice, therefore, to deprive tuberculosis patients of this valuable treatment. We believe that such a dogmatic stand is not justified, and that in such instances too as in every field or medicine individualization should replace generalizations.

We submit that pulmonary tuberculosis is amenable to treatment even in the mentally ill. Hence, we believe that once the disease has been brought under control, consideration be given to shock and fever therapy.

The High Incidence of Tuberculosis: Many theories have been offered to explain the high incidence of tuberculosis in the mentally ill and defective, particularly in the schizophrenics and low grade defectives. Time does not permit us to deal with these in detail. Alstrom of Sweden[14] published an extensive study in 1938 reviewing the voluminous literature on the subject. While he does not accept any of the theories advanced, he was forced to admit that there must be some clinical connection between tuberculosis and schizophrenia and that in some way or other schizophrenia prepares the way to tuberculosis.

While the surveys conducted show without exception a high incidence rate of tuberculosis in mental institutions, there is a wide latitude between the incidence rates reported not only by the various authors, but also in the different institutions surveyed by the same author, as was pointed out by one of us in the Peoria State Hospital Survey[2]. Some of this divergence is, no doubt, due to the "personal equation" of the various authors, others to the interpretation of the vague term of "clinically significant tuberculosis" which readily permits personal bias.

It should also be remembered that the patient population of our mental hospitals, with the exception of the institutions for the feebleminded, is considerably older than that of the general population, and that the mortality rate from tuberculosis increases with advancing age. Hence, for the sake of accuracy comparisons with other groups should be made on the basis of age specific rates of the State, as first advocated by Malzberg[15] or on the basis of standardized specific rates as given by the U. S. Public Health Service.[16]

It should not be forgotten either that the reports hitherto published orginated in public institutions, the patient population of which is recruited from our lower social and income strata, among whom, as shown by Whitney,[17] tuberculosis is far more prevalent than it is in the general population. It is, therefore, not entirely justified to compare the incidence in mental institutions with that observed in the general population. Surveys conducted on a representative number of patients cared for in private institutions, may readily tell a different story and could bring us closer to a true incidence rate of the psychotic and defective.

It is our belief that a combination of many factors contributes a complex share to the high rate observed. Could the causal connection be found in explaining the differences observed between the various institutions, we could come closer to the understanding of some of the still obscure problems in the epidemiology of tuberculosis. Patients who are under constant medical supervision in our mental institutions would lend themselves admirably to such studies. Here then is a fertile field for the collaboration of the psychiatrist and phthisiologist. Such collaboration could readily benefit both specialists and their patients.

The Tuberculin Survey: The survey at the Lincoln State School and Colony shows a relatively high percentage of positive reactors. It is, however, comparable to the results found by Bronfenbrener[1] who in 1932 found that 40.5 percent of the 2,334 patients of Letchworth, Village, Pennsylvania, gave a positive reaction with the Von Pirquet test. The intradermal test is admittedly more sensitive than the Von Pirquet test showing a higher number of positive reactors.

As it was expected, the percentage of positive reactors increases with advancing age. How much this increase is due to the residence in the institution we are unable to tell, because the number of patients thus far tested in the Receiving Wards is too small, and so does not permit a fair comparison with the older residents.

It was the object of this survey to determine the negative reactors, so that by repeating the test at annual intervals we shall be able to measure the increment of new infections in our patient population and thereby also the effectiveness of our control measures. The number of negative reactors is high enough to serve this purpose satisfactorily.

Our Obligation to Our Communities

The epidemiological map of Illinois depicting the mortality rates from tuberculosis shows the highest rates in every community where a state hospital is located. As a matter of fact, according to the latest study of the U.S. Public Health Service covering the years of 1939-1941[19] the highest mortality rate per 100,000 in the State, 215.7, was recorded in Kankakee County where the Manteno and the Kankakee State Hospitals are located.

The other institutions are responsible for the following rates:

Lincoln State School and Colony	
Logan County	138.5
Anna State Hospital	
Union County	134.7
East Moline State Hospital	
Rock Island County	132.2
Elgin State Hospital	
Kane County	103.5
Dixon State Hospital	
Lee County	101.7
Jacksonville State Hospital	
Morgan County	90.7
Peoria State Hospital	
Peoria County	71.8
Alton State Hospital	
Madison County	39.2

In contrast the mortality rates for the State and its various areas were as follows:

The State	46.4
Urban Places	52.6
Balance of State	35.3

These rates speak for themselves and demonstrate clearly how much our state hospitals contribute to the high mortality from tuberculosis. They also prove that these hospitals represent veritable endemic areas within the State. It is of slight consolation that the conditions in Illinois are not worse than in any other state. The responsibility as far as our own institutions are concerned is our own. In Illinois we are far ahead of most of the states, because the Department of Public Welfare has provided the means for the effective control of the disease. Will we utilize these as effectively as we should?

The eradication of tuberculosis is the unfinished business of the present medical generation, as that of typhoid was of the preceding one. It can be accomplished, however, only through team work between the general practitioner and the physicians charged specifically with its control in our communities in general, as well as in our mental institutions in particular. As far as our mental institutions are concerned the responsibility and its rewards alike are greater because here the patients are under constant medical supervision and we cannot excuse ourselves that the patients have waited too long until their disease has become far advanced before they have presented themselves to us.

Our armed forces have well demonstrated how effectively tuberculosis can be brought under control once adequate machinery has been set in motion. According to Long[20] the tuberculosis mortality for the entire Army group including its discharged members by the end of the year 1945 was 12 per 100,000. At the same time the annual rate for the whole country was 52. The Armed Forces have set the target we, tuberculosis physicians and resident staffs as a team, have to aim at. The statistics of the next Census year will show how close we will come to our goal.

CONCLUSIONS

1. Since 1904 when the late Dr. George Zeller established the "Tent Colony", the first public tuberculosis sanatorium in the State at the Peoria State Hospital, the mental institutions of Illinois have always combatted tuberculosis according to the prevailing ideas of the day.

2. From January 1, 1943 to March 1, 1947, 221 patients were cared for on the Tuberculosis Unit of the Lincoln State School and Colony. Of these 74, as the review of their course and serial x-rays have shown, had no tuberculosis. Of the 147 tuberculosis patients 53, or 36.0 percent died, the condition of 48, or 32.6 percent has become arrested and 45, or 30.6 percent were still under treatment on March 1, 1947.

3. The intradermal tuberculin test performed on the patients of the Colony showed 47% positive reactors. The percentage of the reactors increased with advancing age.

4. Among the shock therapy cases of the Peoria State Hospital, as far as can be determined, only one case developed pulmonary tuberculosis about 3 years following cessation of treatment.

5. The chest radiogram, important as it is, constitutes only one link in the diagnostic procedures. History, tuberculin test, physical and laboratory examinations should, therefore, not be neglected.

6. Tuberculosis in mental institutions can be effectively controlled only through the close collaboration of the Resident Staff and the tuberculosis physician. It is recommended that beside the annual check-up x-ray examinations every patient admitted to the infirmary should have a chest radiogram as soon as his condition permits, pneumonia patients should have also a final x-ray before returned to their original wards, patients to be dischargel from the institution should have a chest radiogram within 4 to 6 weeks prior to their release.

7. Tuberculosis patients should not be dogmatically deprived of shock and fever therapy. As soon as the tuberculosis of the patient has been brought under control, the advisability of this therapy should again be seriously considered.

8. Because patients in mental hospitals are under constant medical supervision, they offer a splendid opportunity to phthisisologists and psychiatrists to study by joint efforts the unsolved epidemiological problems causing the high incidence of tuberculosis among the mentally ill and defective.

9. According to the latest statistics available the highest tuberculosis mortality in Illinois was recorded in Kankakee County where the Manteno and Kankakee State Hospitals are located. Excessively high death rates are shown in the Counties where the other mental institutions are situated. These conditions make it incumbent on the medical staffs of our mental hospitals to do their utmost in combatting the disease.

We wish to express our thanks and appreciation to Dr. William W. Fox, Superintendent of the Lincoln State School and Colony and to Dr. R. J. Graff, Superintendent of the Peoria State Hospital, for making this study possible through their cooperation.

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DISCUSSION

Dr. W. Baer: Dr. Pollak's excellent paper is most worthy of your careful consideration. Your cooperation in carrying out suggested procedures will prove to be an important factor in the ultimate success of the tuberculosis control program in our State institutions.

Today there is an increasing recognition of the mental factors in so-called physical disease as is evidenced by the development of psychosomatic medicine as one example. From the standpoint of the care mentally ill people receive and especially in their hospital care, there is today an increasing awareness of the need of not neglecting the physical disabilities of these patients. We are in a period of transition from the giving of custodial care, housing, food, etc. to the giving of adequate "medical" care. This transition will require initiating and completing in our mental hospitals all recognized and standard medical practices that prevail in our non-mental hospitals.

The early recognition and treatment of tuberculosis is a pertinent example. While the Illinois mental hospitals are in the forefront in this program of giving better medical care, none of us are satisfied with the rate of change. It takes months and years to get equipment, personnel, and then carry out the procedures. This time delay is something that we ought to be able to change. The delays brought on during the war period were unavoidable. Now our rate of progress should be much increased. The members of the staffs of our hospitals can help materially in reaching more nearly to the desirable goals. The invaluable help, the inspiration, the prodding and guidance from imminent medical consultants who have given unstintingly of their time and wisdom to help us should not be unrecognized. Dr. Pollak is an outstanding example. While Superintendent of the Peoria Municipal Tuberculosis Sanitarium he was responsible for starting the present program of tuberculosis control in our State

hospitals. This excellent paper today illustrates the type of medical service that the mentally ill in our hospitals are beginning to receive. As members of the Physician's Association of the Illinois Welfare Institutions, we can well dedicate ourselves anew to the unfinished task of transforming our institutions into well run hospitals that provide the type of medical care to which our patients are entitled.

COLONIC DIVERTICULA: A REVIEW OF TWO HUNDRED THIRTY-FOUR CASES

FRANK C. VAL DEZ, M.D., CHARLES S. GILBERT, M.D. AND WOODROW KASH, M.D.
CHICAGO

Diverticula of the colon were recognized almost a century ago, but during the past twenty-five years more attention has been given to this condition as a cause of abdominal symptoms. In spite of this increased interest a diagnostic clinical picture has not been developed. It is our hope that a more careful observation of a thousand or more cases will develop a clinical story of this condition and it was with that hope that this survey was undertaken. A perusal of the literature leads one to the conclusion that at present there is no general agreement as to when diverticulosis becomes diverticulitis.

Bargen[1] defines a case of diverticulosis as one in which evidence of diverticula is found by roentgenological examination or at necropsy and in which from all available data does not bear any relationship to the patient's complaints. Palmer[2] states that in diverticulitis clinical manifestations appear only when secondary inflammation develops. If these definitions are adhered to by a large number of clinicians a characteristic clinical story will be developed.

This review is a study of 234 cases of colonic diverticula seen at Mercy Hospital from 1930 to 1947. It includes 122 cases of diverticulosis and 112 cases of diverticulitis.

Most of the cases of colonic diverticula occurred from the ages of 50 to 70. Willard and Bockus[3] found the average age of 35.4 in 72 cases. Brown[4] reported the condition uncommon under 40 and rare under 30. Levitt and Goldstein[5] noted 43 out of 46 cases 50 to 70 years of age. Newton[6] reported its occurrence at 12 and 77 years. All of 24 cases reported by Eggers[7] were over 40 with 9 in the sixth decade. In 1917, W. J. Mayo[8] reported an average age of 53 in 42 cases. In our series of cases the youngest was 16 and the oldest 86. There was almost an equal number of cases in the fifth and sixth decade — 26 per cent and 26.5 per cent respectively (see Table I).

The sex distribution is revealed in Table No. II. The literature indicates that more colonic diverticula are found in the male than in the female, although many report an equal distribution. Ochsner and Brown[9], Conway and Hetzrat[10], Newton[6], Eggers[7], W. J. Mayo[8], and Martin and Adsit[11].) In our series there were more females with diverticulitis and diverticulosis. In the complete series there were 43.6 per cent males and 56.4 per cent females.

The symptomatology of colonic diverticula is decidedly variable. According to definition there is no pain referable to diverticulosis, however, it is conceivable that such a defect may cause spasm in the colon which may result in abdominal discomfort. In diverticulitis pain is present to a variable degree in most cases. The pain may be acute, subacute or chronic. The pain may be localized, general, constant or intermittent, whether or not there is a definite radiation. Lynch[12] believes that all people with diverticulosis have symptoms, but Abell[13] states that there are no symptoms referable to diverticulosis. Erdman[14] observed that the onset was characterized by pain in the abdomen most frequently in the lower left abdomen. Ochsner and Bargen[9] report

TABLE I
AGE DISTRIBUTION — (234 cases)

	Diverticulitis	Diverticulosis	Total	% of total
10-19	1	0	1	0.5 (0.43)
20-29	2	0	2	0.8 (0.85)
30-39	3	11	14	6.0 (5.98)
40-49	17	16	33	14.0 (14.10)
50-59	32	29	61	26.0 (26.07)
60-69	33	29	62	26.5 (26.49)
70-79	21	19	40	17.0 (17.09)
80-89	6	4	10	4.0 (4.27)
Unknown	7	4	11	5.0 (4.70)
	122	112		

TABLE II
SEX DISTRIBUTION — (234 cases)

	Diverticulitis	Diverticulosis	Total	%
Male	57	45	102	43.6
Female	65	67	132	56.4

From Mercy Hospital, Chicago, Illinois.

TABLE III
Location of Abdominal Pain — (234 cases)

Location	Diverticulitis	Diverticulosis	Total	%
Generalized	22 S-14 M-12 C-6	19 S-3 M-14 C-2	41	17.5
Left lower quadrant	31 S-9 M-16 C-6	4 M-3 C-1	35	14.9
Epigastric	14 M-14	14 S-2 M-12	28	12.0
Both lower quadrants	23 S-7 M-11 C-5	0	23	9.8
Right lower quadrant	13 S-7 M-5 C-1	3 M-3	16	6.8
Right Upper quadrant	1 S	2 M	3	1.3
Left Upper quadrant	1 M	1 M	2	0.85
Upper abdomen	2 S-1 M-1	0	2	0.85
No pain	15	69	84	35.9
	122	112		

89 per cent of the cases of diverticulitis had pain. Case[15] rules out any symptoms in diverticulosis referable to the diverticula. Rankin and Brown[16] describe an intermittent sharp pain, a slow boring constant pain, and conclude that there is no typical pain. In diverticulitis of the colon, Conway and Hetzrat[10] report abdominal discomfort and pain, not as a rule related to food, that occurred in the left lower abdomen. There was flatulence and a feeling of distention. Huston[6] found similar symptoms.

We have made an analysis of the type of pain and its location in diverticulitis and in diverculosis. We classified the pain as severe, mild, and cramplike. A summary of the findings is compiled in Table No. III. Of 112 cases of diverticulitis 15 had no pain, while 69 of 122 with diverticulosis had no pain. Twenty-two patients with diverticulitis and 19 with diverticulosis had generalized abdominal pain. In the whole series, 41 or 17.5 per cent complained of generalized pain which was the most common complaint. Most cases of diverticulitis (31) gave a history of pain in the left lower abdomen. Only 4 cases of diverticulosis complained of pain in that region. Very few (8.1 per cent) had pain in the right side.

A picture of the temperature and leukocyte count in 92 cases of diverticulitis excluding those with complications is shown in Tables No. IV and V. If a leukocyte count of 10,000 is considered the upper limit of a normal fluctuation 51 per cent of this group had a leukocytosis. A temperature under 100° F. was seen in 54.95 per cent. Twelve cases had a temperature above 100° F., and a like number had a leukocyte count above 15,000.

Anemia was not a frequent finding exclusive of those with gross bleeding. There is no uniformity of opinion on this subject in the literature. Levitt and Goldstein[5] report anemia in most of their cases of diverticulosis. Rankin and Brown[16] found anemia rare.

Bleeding as demonstrated by gross or occult blood in the stool is not common.

TABLE IV
TEMPERATURE IN 92 CASES OF DIVERTICULITIS
(Excluding complications)

Temperature	Cases	%
Below 98.8°	42	45.65
99-100°	38	41.30
Over 100°	12	13.04

TABLE V
LEUKOCYTE COUNT IN 92 CASES OF UNCOMPLICATED DIVERTICULITIS

Leukocytes	Cases	%
Below 8000	22	24
8000-10,000	23	25
10,000-15,000	35	38
Over 15,000 (Highest 25,700)	12	13

Gross hemorrhage does occur. Willard and Bockus[3] reported bleeding in 39 per cent of 72 cases with only 5 to 7 per cent due to diverticula and one gross hemorrhage. Conway and Hetzrat[10] state that hemorrhage is rare since the inflammation lies as a rule outside the mucous membrane as a peri-diverticulitis. Six of 24 cases reported by Eggers[7] had gross blood in the stool from time to time. We found gross blood in 18 cases and occult blood in 30 with diverticulitis. In the diverticulosis cases only 22 had blood in the stool.

Red meats and other sources of blood should be omitted from the diet when stools are being examined for occult blood.

Obstruction and perforation, with or without abscess formation are the most common complications of colonic diverticula. Fistulas are uncommon, and carcinoma occurs very rarely. It is apparently rather widely believed that carcinoma is a common complication. Rankin and Brown[16] found carcinoma very rarely. In 227 cases only 4 had carcinoma, and in 679 cases of carcinoma of the bowel only 4 cases of diverticulosis were found. W. J. Mayo[8] in 1917 reported carcinoma in 31 per cent of a series. Four cases of carcinoma were encountered in the presence of diverticulitis out of 201 reported by Martin and Adsit[11].

In this series of 234 cases there were 30 complications: 12 obstructions, 9 perforations, 4 carcinomas, and 7 others which included 4 abscesses, 1 fistula, and 2 massive hemorrhages. It is recognized that 5 of the 7 mentioned might be included by some under perforation. Eighteen complications occurred in females and 12 in males. There were only 4 deaths.

Roentgenological examination is essential for the diagnosis of diverticula and for the site of their occurrence. Table VI gives the site of the diverticula in this study. Fourteen of the cases were examined roentgenologically before entering

TABLE VI
SITE OF DIVERTICULA

	Diverticulitis	Diverticulosis	Total	%
Sigmoid only	32	31	63	31.0
Descending and sigmoid	15	29	44	22.0
Entire colon	19	24	43	21.0
Descending only	13	11	24	12.0
Transverse, descending and sigmoid	2	1	3	1.5
Transverse and descending	0	2	2	1.0
Ascending and descending	0	2	2	1.0
Transverse only	0	2	2	1.0
Hepatic flexure	2	0	2	1.0
Ascending only	11	1	2	1.0
Splenic flexure	0	1	1	0.5
Unknown			14	7.0

the hospital and in 18 the report did not reveal the site or the patient was treated surgically first. By studying Tables III and VI many interesting relationships can be determined. Apparently there is no uniformity of opinion as to the fluroscopical diagnosis of diverticulitis although Case[15,17] outlined his opinion many years ago. Willard and Bockus[3] later called attention to an angulation in the colon at the site of the diverticulitis. It is reasonable to believe that a marked localized spasm in the region of the diverticula and not present elsewhere in the colon is sufficient evidence for a diagnosis of diverticulitis. That is one of the criteria followed in this series of cases.

The treatment of colonic diverticula may be medical or surgical. Surgical treatment is usually the choice when complications are present. Jones[18] states that wise medical care in symptomless diverticulosis may save a certain number from trouble in the future, and he treats diverticulitis with infiltration, conservatively. He also advises barium sulphate by mouth twice a week to keep the diverticula filled. Rankin and Brown[16] suggest rest in bed, residue free diet, ice bag to the abdomen and rectal irrigations with hot physiological salt solution. For later treatment they suggest a bland anticonstipation diet, and surgery is indicated in acute perforation abscess, fistulae, inflammatory obstruction

and malignancy. In our series most of the diverticula were treated conservatively and very few cases of diverticulosis received any treatment. In diverticulitis atropine and its derivatives, the sulphonomides, antibiotics, antispasmodics, mineral oil, and the barbital preparations were frequently given. Heat in various forms was found beneficial. A low residue diet was prescribed. The cases with complications were treated surgically.

In summary 234 cases of colonic diverticula consisting of 122 cases of diverticulosis and 112 cases of diverticulosis are analyzed.

The discussion of these cases is divided into: (1) Sex and age, (2) location and type of abdominal pain, (3) temperature and leukocytosis in diverticulitis, (4) bleeding in diverticulitis, (5) the complications, and (6) the roentgenological findings and the site of location.

A hope is expressed that more careful observation of the clinical picture of colonic diverticula will be made by many others in an effort to develop a more diagnostic clinical story.

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He never had such a tough time in his life. First he got Angina Pectoris, followed by *Arteriosclerosis. Just as* he recovered from these he got Pneumonia, followed by Pulmonary *Phthisis and Tuberculosis. Somehow* he got over nothing of Pyorrhea. All in all, he never knew how he pulled through it. *It was the hardest* spelling test he'd ever been in.

FURTHER CLINICAL EXPERIENCE WITH DOLOPHINE

JACOB J. JACOBY, M.D., MARTIN P. WOOLF, M.D.
AND
H. M. LIVINGSTONE, M.D.
CHICAGO

Dolophine* is a new synthetic analgesic obtained from Germany, and bearing the German serial number 10820. It is also manufactured in the United States under the name of Amidone. Chemically this drug is the hydrochloride salt of 4,4-diphenyl-6-dimethylamino-heptanone-3, and is a white, crystalline powder readily soluble in water and alcohol, but insoluble in ether. This drug is dispensed in one cubic centimeter ampoules containing 2.5 mg., 5 mg., or 7.5 mg. of dolophine in solution, and in 20 cubic centimeter rubber stoppered ampoules having 10 mg. of dolophine per cubic centimeter. The solution contains chlorobutanol (chloroform derivative) 0. 5 per cent. Dolophine also is dispensed in 2.5 mg. oral pulvules.

Scott and Chen[1], in February 1946, first reported on the pharmacology of dolophine. A further pharmacological study was made by Scott, Kohlstaedt and Chen[2]. In January 1947 the early clinical experience with dolophine in a total of 112 patients was reported[3]. The following survey is a supplement to the previous communication and includes an additional series of 270 patients.

The effect of this drug in dogs is somewhat similar to morphine in that it depresses respiration, causes vagal slowing of the heart and almost no depression of salivary secretion. Dolophine differs from morphine in that it produces less stimulation in cats, probably shows less tendency to the development of tolerance, and has little or no emetic action in dogs. Dolophine, like morphine, has a spasmogenic action on both the intestine and ureter of the dog. While this drug *may have a local antispasmotic effect on these* structures, this effect is overshadowed by a central parasympathetic action.

Preanesthetic Use. — Dolophine was administered as a preanesthetic agent to 73 patients of whom 50 were males and 23 were females.

From the Department of Surgery, The University of Chicago.

*This preparation was obtained through the courtesy of Eli Lilly and Company.

They ranged in age from 13 years to 81 years. Eleven patients received dolophine plus sodium pentobarbital, Gm 0.16 to 0.24. Thirteen patients were given dolophine after inadequate premedication with morphine or morphine and sodium pentobarbital. Sixteen patients received only 5 to 7.5 mg. of dolophine, and the remaining individuals received 10 mg. of dolophine. In thirteen instances dolophine was administered intravenously, while in the remainder the intramuscular or subcutaneous routes were employed.

The sedative effect of this preanesthetic medication was noted as fair to good for 51 patients (70 per cent), and unsatisfactory for 22 patients (30 per cent). No atropine-like effects were noted, and there were no instances of nausea and emesis attributable to this drug.

Dolophine administered alone for premedication before surgery was not adequate for most individuals because of lack of control of apprehension. It is very effective in producing sedation, however, when given after moderate doses of morphine sulfate or sodium pentobarbital or both. Dolophine produced satisfactory sedation in 8 out of 10 patients who had unsatisfactory results from morphine sulfate or sodium pentobarbital and morphine sulfate.

Dolophine was administered intravenously slowly in doses from 5 to 15 mg. in 13 patients. A transient sensation of "light-headedness" was noted 2 to 4 minutes after the injection and persisted for from 5 to 15 minutes. The analgesia from one injection in this small series was adequate for one and one-half to two hour regional blocks, or two and one-half hour spinal anesthesias for surgical procedures.

In the previous communication[3], no untoward effects were noted on blood pressure, pulse or respiration. In this series we are reporting four instances of respiratory depression following the administration of dolophine.

Case I. K. E., female, age 41 years, who was in good general condition, came to the operating room for removal of a mixed tumor of the parotid gland. At 6:45 a.m. she had received morphine sulfate, Gm. 0.010 hypodermically, and sodium pentobarbital, Gm. 0.24 intramuscularly. Ethylene-oxygen anesthesia (75-25 per cent) was begun at 8:05 a.m. Because of inadequate pre-medication, 7.5 mg. of dolophine was administered hypodermically at 8:15 a.m. Thirty-five minutes later the respiratory rate dropped rather suddenly from 14 to 6 and 8 per minute, and remained at this rate throughout the procedure. There were no other disturbing manifestations. The operation was completed at 9:05 a.m. and 100 per cent oxygen was given by mask. Upon return to her room, oropharyngeal insufflation of oxygen was administered. The respiratory rate remained depressed for about one and a half hours. The patient was listless and drowsy for the following 24 hours. The post-operative course was otherwise uneventful.

Case II. L. R., female, age 29 years, entered the hospital following a diagnosis of hyperthyroidism. She was prepared for thyroid surgery and her basal metabolic rate was reduced to plus 12. She was given morphine sulfate, Gm. 0.010 hypodermically, and sodium pentobarbital, Gm. 0.24 intramuscularly at 7:10 a.m. as premedication. On arrival in the operating room, the premedication was found to be inadequate. Ethylene-oxygen anesthesia was begun at 8:25 a.m., 5 mg. of dolophine was administered intramuscularly at 8:10 a.m. and again at 8:30 a.m. The respiratory rate which had been normal diminished to 12 per minute at 8:35 a.m., although respirations were full and deep. Anesthesia was maintained with ethylene-oxygen (50-50 per cent). In about twenty minutes the respiratory rate increased to 16 per minute, and one hour later at the completion of the operation the respiratory rate was 18 per minute. Recovery was uneventful.

Case III. S. S., male, age 63 years, in good general condition, was admitted to the hospital with a diagnosis of benign prostatic hypertrophy. In 1936 he had had a transurethral prostatectomy performed elsewhere under procaine spinal anesthesia, which was uneventful. At 8:00 a.m. this patient was given 10 mg. of dolophine intramuscularly. He arrived in the operating room at 8:30 a.m., at which time respirations were noted to be 6 per minute, and the patient appeared drowsy. A suprapubic prostatectomy was performed under low procaine spinal anesthesia. Mask oxygen was administered throughout the procedure, and 2 cubic centimeters of coramine was administered intravenously with no apparent effect. The operative procedure lasted from 10:20 to 10:45 a.m. Respirations remained at 6 per minute until 1:00 p.m., at which time the respiratory rate began to increase. At 5:00 p.m. it had reached 14 per minute. At 9:00 p.m. the respiratory rate was 18 per minute.

At 9:30 that evening the patient was given 10 mg. dolophine intramuscularly and seconal, Gm. 0.09 orally, and no further respiratory depression was noted. The patient was mentally confused during that day and evening, and at 10:30 p.m. he arose and went to the bathroom. He has no recollection of the events of that day.

Case IV. P. G., male, 42 years of age, was admitted to the hospital with a diagnosis of traumatic arthritis of the right hip of 18 years' duration. Except for this complaint, the patient was in good general condition. He was given morphine sulfate, Gm. 0.010, and atropine sulfate, Gm. 0.0004 hypodermically, and sodium pentobarbital, Gm. 0.24 intramuscularly at 8:50 a.m. The patient came to the operating room for an arthrodesis of the right hip and osteotomy of the right femur. Ethylene-oxygen anesthesia, (75-25 per cent), was

begun at 9:35 a.m., and maintained uneventfully for a period of two hours at which time it was noted that the patient was in light anesthesia and there was slight movement of the extremities. Ten mg. of dolophine was then given hypodermically. Ten minutes later his respiratory rate dropped rather suddenly from 16 to 6 per minute, but the tidal volume was adequate. The ethylene-oxygen mixture (75-25 per cent) was changed to 50 per cent and one cubic centimeter of coramine and 0.5 gms. of caffeine sodiobenzoate were given intravenously. There was no apparent effect upon the respiratory rate. Carbon dioxide (0.6 liter) was added to the inspired atmosphere and the respirations increased to 14 per minute. Upon discontinuing the carbon dioxide the respiratory rate again dropped to seven per minute. The patient's color remained good, and respirations were deep and full. At the termination of the surgical procedure, two hours after the onset of respiratory depression, the ethylene-oxygen anesthetic was discontinued, and 100 per cent oxygen was given by mask. The respiratory rate rose to 16 per minute. The post-operative course was uneventful.

The following case illustrates one instance in which the lack of respiratory depression from dolophine was advantageous:

Case VI: M. K., female, age 25 years, was admitted to the hospital because of gradual onset of quadriplegia. She had difficulty in swallowing and expectorating accumulations of saliva, and there was a partial respiratory paralysis. A diagnosis of tumor of the cervical cord was made. The patient was in the eighth month of gestation. A cervical laminectomy was performed in the sitting position, under local anesthesia. Because of apprehension, it was necessary to administer a sedative. Morphine sulfate was not used for fear of increasing the respiratory embarrassment. Five mg. of dolophine was administered intravenously, and ten minutes later 5 mg. was given subcutaneously. Good sedation was obtained, and there was no depression of respiration. This was of interest for in most patients it does not lessen apprehension.

Postoperative Use. — Dolophine was administered to 240 patients for relief of post-operative pain. Of these, 177 were males and 63 were female patients. A large proportion of the patients had urological procedures performed including: 49 prostatectomies, 12 nephrectomies and 6 orchiectomies. There were 74 miscellanous urological operations including: cystocopies, penile amputations, ureterosigmoidostomies, hydrocelectomies and total cystectomies for carcinoma of the urinary bladder.

Dolophine was used following intra-abdominal operations which included: 32 subdiaphragmatic vagotomies, 11 colostomies and 7 cholecystectomies. There were 8 miscellaneous abdominal procedures including: gastric resections, appendectomy, and combined abdomino-perineal resections.

Dolophine was also employed as an analgesic following 41 miscellaneous surgical procedures including thoracic operations, leg amputations, thyroidectomies, setting of fractures and brain surgery.

The dosage used in this series was 10 mg. every 3 to 4 hours in the greater majority of instances. Some patients received 5 mg. doses, and a few were given 15 mg. doses. In most of these patients dolophine provided satisfactory analgesia, especially when the drug was administered every 3 hours. There were several instances in which dolophine was unsatisfactory, but good analgesia was obtained when morphine sulfate or demerol were used. In several patients with advanced carcinoma involving pressure on nerve trunks and damage to vital organs, dolophine in 10 mg. doses was unsatisfactory, but in these cases morphine sulfate and demerol were also inadequate.

There were two patients who were sensitive to morphine sulfate, and three for whom morphine sulfate did not provide satisfactory analgesia. Dolophine proved satisfactory in these five patients.

Our present series of 270 patients represents a total of 1,274 administrations of individual doses of dolophine. Of these 186 were 5 mg., 5 were 7.5 mg. 1,010 were 10 mg. and 73 were 15 mg. doses.

Transient dizziness or "light-headedness" was the most frequent untoward reaction, and this was noted in approximately one-half of the patients. There were no instances of constipation or of nausea and vomiting attributable to this drug.

In our total series of 382 patients there was no evidence of addiction or habit formation, and there were no withdrawal symptoms when the administration of this drug was stopped. However, only 5 patients received the drug for periods longer than two weeks. A recent report by Isbell, Eisenman, Wikler, Daingerfield and Frank[4] revealed that dependence on dolophine can be developed, and that its use should entail the same careful control as any other drug with addiction potentialities. The abstinence syndromes following abrupt withdrawal of dolophine were mild.

SUMMARY

On the basis of clinical experience with dolophine in a total of 382 patients, we believe it to be a drug of definite analgesic value. The incidence and severity of side reactions is less than that with morphine in equal doses. Nausea, emesis and constipation have not been noted with this drug. Respiratory depression is rare. The principle side reaction to dolophine is a brief period of dizziness or "light-headedness" which is not severe, and does not constitute a contraindication to its use. The drug appears to be equally effective milligram for milligram with morphine. We believe that the dose of dolophine in patients with severe pain should probably be increased to 15 mg. The relief from pain obtained from 10 mg. of dolophine is about of the same degree as that obtained with 10 mg. of morphine sulfate, but the duration of action appears to be somewhat shorter. Dolophine may be administered without reaction to patients who are sensitive to the opium derivatives. We have not noted habituation or addiction in this series of patients. Evidence presented elsewhere reveals the addiction potentialities of dolophine. Euphoria and sedation are not as marked with dolophine as with morphine, so that dolophine seems to be inferior to morphine sulfate as preoperative medication. When dolophine is combined with morphine sulfate or sodium pentobarbital, it usually provides satisfactory sedation. Three of the four patients who developed respiratory depression had received this combination, so that caution is necessary in its use in combination with other analgesics or sedatives, and particularly during inhalation anesthesia.

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Case Report

TOOTH PICK PERFORATION OF THE ILEUM

FRANK J. SALETTA, M.D.
AND
GEORGE J. RUKSTINAT, M.D.
CHICAGO

The normal human digestive tract is remarkably adaptable for receiving a variety of objects superfluous to the needs of alimentation. Usually tacks, coins, toys and an unending variety of foreign bodies are moved along by peristaltic action and eliminated without mishap. Certain potentially harmful ingesta may be enveloped in a food mass and so transverse the esophagus with impunity. They may also orient themselves in the axial stream of the gastric discharge through the pylorus. The main difficulty is seen with pointed, long and pronged objects which become wedged crosswise into the small bowel.

A tooth pick is in the latter category and is frequently employed as a skewer for food preparations. In this role it is at times broken and deeply embedded in chunks. Stained with the juices of cooking it may escape notice even when whole. Chewed with food, especially by people wearing dentures it may even elude detection and be swallowed.

Where bowel motility is altered by adhesions between the coils or to the abdominal wall, lodgement of a foreign body in the lumen is facilitated. In the following report such adhesions were present in a patient who was additionally unfortunate in swallowing a tooth pick.

Case Report: The patient was a white female, 57 years of age, who weighed 243 pounds (110.5 Kg.). Her medical history indicated the usual childhood diseases. She had born six children. She had had a cholecystectomy performed thirty years before her present illness. Highly significant is the fact that she had had a laparotomy and drainage for a ruptured appendix with peritonitis eight years ago. This was followed by an appendectomy nine months later and by laparotomy for intestinal obstruction three years later.

In the interval between her operation for bowel obstruction and her present hospital stay the patient had four attacks of intermittent epigastric pain, constipation, backache, fever and three times had a right-sided abdominal mass. On December 27, 1947, the first of these episodes occurred and ended two days later with a spontaneous resolution of symptoms. On June 23, 1947, the tenderness in the abdomen was marked. After two days of treatment with one gram of sulfathaladine orally every four hours, 50,000 units of penicillin intramuscularly every three hours and warm compresses to the abdomen, the mass was incised. About 500 c.c. of foul-smelling pus escaped from the incision. The patient made a speedy recovery and by July 16, 1947, the incision was healed.

The third attack occurred while the patient was on a distant visit. She was hospitalized and shortly thereafter spontaneously ruptured her abdominal swelling and discharged large amounts of pus. This discharge diminished gradually for two weeks and then the fistulous opening closed.

Again on September 26, 1947, the abdominal pain and mass recurred and there was spontaneous evacuation of pus through the old fistulous tract.

From the Departments of Surgery and Pathology of Holy Cross Hospital, Chicago, Illinois.

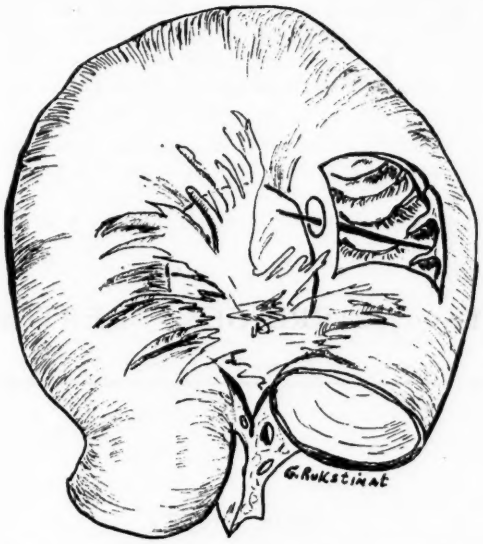

Figure 1. Illustrating the method of perforation of the ileum by a tooth pick.

On October 13, 1947, the patient was admitted to the hospital for surgical intervention. At the time of admission she had a temperature of 102°F., but no mass in the abdomen. The patient had lost 43 pounds since the onset of her symptoms, nine months previously.

Physical Examination: Revealed an acutely ill patient with a fever of 102.8°F., a rapid pulse, a blood pressure of 110/84, and tenderness on the right side of the abdomen. A lesion of the right colon was suspected but a barium enema was followed by x-ray studies which were negative.

The Laboratory findings were as follows: The red blood cells were 4·450,000 and the white cells 10,500 per cu. mm. The hemoglobin was 13 grams; the differential blood count was 84% polymorphonuclear leucocytes and lymphocytes 16%. The urine and Kahn tests were negative.

Treatment: The patient was given one gram of sulfathaladine orally every four hours. A blood transfusion of 500 c.c. was given October 16, 1947, and surgery was performed October 17, 1947. Cyclopropane anesthesia and intocostrin were used.

A right rectus incision was made in elliptical manner to circumscribe the fistula. With careful dissection the peritoneal cavity was entered at the upper end of the incision. Diffuse dense adhesions were severed and a mass 15 cm. in diameter was freed from its attachments to the viscera and anterior abdominal wall. The mass was formed by extensive adhesions between the coils of ileum and mesentery. Approximately 30 cm. of the ileum, including the mass, was resected and an end-to-end anastomosis was performed, 12 cm. proximal to the ileo-cecal valve. A Witzel tube ileostomy was performed six inches proximal to the anastomosis to act as a safety valve. The tube was brought to the outside through a stab wound to the right of the incision. The abdomen was closed with no drainage. Levine suction was inserted and used for 48 hours.

The patient was given another 500 c.c. blood transfusion and received 3000 c.c. venoclysis daily for three days using 2000 c.c. of 5% glucose in distilled water and 1000 c.c. 5% glucose in normal saline. The patient also received 1000 mgm. vitamin C and 10 mgm. vitamin B complex, daily. Penicillin, 50,000 units, were given intramuscularly every three hours for five days. The patient was quite ill for the first 48 hours but improved steadily thereafter. She had a liquid bowel movement on the third post-operative day. The Witzel tube was removed several days later. The patient had a secondary wound infection which lasted about two weeks but left the hospital in good condition, November 2, 1947, and has been well and active since.

Pathological Findings: A portion of small bowel about 45 cm. long is twisted into an irregular mass by a series of adhesions between the bowel and its various coils and between the coils and the mesentry. Near the middle of the mesentery mass there is an irregular puckering and in one place there is a fistulous tract about 22mm. long, now partially laid open and about 12 mm. wide. The bowel is followed in its entire course and near the very center of the mass there is a round, slightly bent tooth pick in the lumen. One end of this projects into the fistulous tract.

Diagnosis: Extensive adhesions between the coils of the small bowel and mesentery. Foreign body (tooth pick) in the small bowel with perforation of the wall and fistulous tract formation.

News of the State

PERSONALS · COMING EVENTS · MARRIAGES · DEATHS

ADAMS COUNTY

Society News.—Dr. Robert Elman, St. Louis, addressed the Adams County Medical Society, March 8 in Quincy on "The Problem of Starvation in the Hospital Patient."

Personal.—Dr. Walter Stevenson, Quincy, recently addressed the student body at Tulane University, New Orleans, on "Cataract Surgery in India" and gave a paper before the Orleans Parish Medical Society, on "The Medical Care of Squint."

In Practice Seventy Years.—Dr. Edmund B. Montgomery, Quincy, was honored at a meeting of the Adams County Medical Society, March 8. According to the Rushville Times, Dr. Montgomery is the oldest active doctor among the membership of the Illinois State Medical Society. He is ninety years old and has been in practice for seventy years.

BUREAU COUNTY

Society News.— Dr. Morris Fishbein, Chicago, editor of the Journal of the American Medical Association, addressed the Bureau County Medical Society and the Bureau County Bar Association, March 9, at the Bureau Valley country club. The county medical society was addressed April 16 by Dr. John F. Pick, Chicago, on "What the General Surgeon Must Know About Plastic Surgery."

CHAMPAIGN COUNTY

Champaign County Society Endorses Dr. Lamkin for Coroner.—The Champaign County Medical Society went on record, March 16, as endorsing Dr. W. F. Lamkin, Champaign, for reelection as county coroner. The endorsement was based on a belief that the coroner should be a physician. Only a physician is qualified to conduct investigations and inquiries into the cause of death. As they voted the endorsement, the doctors praised Dr. Lamkin's record as coroner since 1942.

COOK COUNTY

Personal.—Dr. Ernest Irons was elected head of the board of the Municipal Tuberculosis Institute. Former secretary of the board, he succeeded Francis R. Lyons, who died last month. At the election of officers, Philip J. Weber, resident manager of the Edgewater Beach Hotel, was elected secretary.—Dr. Bertha Van Hoosen, dean of women physicians in Chicago, discussed "How to Keep the Doctor's Financial Ledger" at an assembly hour at the University of Illinois College of Medicine, March 31, under the auspices of the Alpha Epsilon Iota.

Society News.—Dr. Leon Unger, Chicago, gave two lectures on "Diagnosis and Treatment of Bronchial Asthma" before the Sociedad Mexicana de Alergistas in San Luis Potosi, Mexico, in January. He also gave a lecture on "Bronchial Asthma in Children" before the staff of the Childrens Hospital of Mexico City, in February.—Dr. Philip Thorek, Chicago, addressed the Polish Medical Society, March 2, in Chicago, on "Carcinoma of the Esophagus." He also gave a presentation on "Surgical Emergencies" before the Livingston County Medical Society, March 11, in Pontiac.—Dr. Maurice H. Cottle, Chicago, spoke before the Michigan Triological Society at its meeting in Grand Rapids, March 25, on "Surgery of the Nasal Septum in Adults and Children and its Association with Rhinoplastic Surgery." The paper was supplemented with slides and kodachrome movies.—Dr. Carlo S. Scuderi recently returned from a trip to Arizona and New Mexico. On February 16, he addressed a group at the General Hospital at Las Almos, New Mexico, on "Backache from an Industrial Standpoint" and on February 17, he spoke before the New Mexico Medical Society at Albuquerque, New Mexico, on "Common Fracture Problems".

City Health Divisions Increase.—Addition of several new divisions to the city health department is being made in line with recommendations in the recent Chicago-Cook County health survey, according to newspaper reports.

The Bacon Lecture.—Dr. Nicholson J. Eastman, an outstanding authority on obstetrics, delivered the 1948 Charles Sumner Bacon lecture at 1 p. m. Wednesday, April 14, at the University of Illinois, 1853 W. Polk street.

Dr. Eastman, professor of obstetrics at Johns Hopkins University, spoke on "Pelvic Mensuration; A Study in the Perpetuation of Error."

Dr. Eastman is a Diplomate of the American Board of Obstetrics and Gynecology. He is a member of the American Association of Obstetricians, Gynecologists, and Abdominal Surgeons, and a member of the American Gynecological Society.

The Charles Sumner Bacon series was inaugurated at the University of Illinois College of Medicine in 1928 in honor of the late professor emeritus of obstetrics and gynecology. At that time, the members of the faculty and friends of Dr. Bacon contributed the sum of $5,000 to found the lectureship.

Irvine McQuarrie Gives Zeit Lecture.—The Fifth Annual Robert Frederick Zeit Lecture was delivered, April 22, by Dr. Irvine McQuarrie, professor of pediatrics of the University of Minnesota School of Medicine, Minneapolis, on "Medical Problems and Pracitce in Japan." The lecture is sponsored by Xi (Northwestern) Chapter of Alpha Kappa Kappa and presented in Thorne Hall at Northwestern University Medical School.

Portrait of Dr. Bassoe.—A portrait painting of the late Dr. Peter Bassoe, well-known Chicago neurologist, was presented to the University of Illinois at 4 p. m., Friday, March 26, by the Central Neuropsychiatric Association.

The presentation was made by Dr. Percival Bailey, a past president of the Association, to Dr. John B. Youmans, dean of the college of medicine.

The portrait was hung in the Quine Medical Library at the Illinois' Chicago Professional Colleges. The portrait was painted by Oskar Gross.

Dr. Bassoe was the founder and first president of the Central Neuropsychiatric Association. He was a member of a committee appointed by the late Governor Henry Horner which drew plans for the establishment of the Illinois Neuropsychiatric Institute.

Pusey Memorial Lecture.—The second William Allen Pusey Memorial Lecture will be delivered at the Palmer House on Friday evening, May 28 at 8:00 o'clock by Dr. J. Christian Bay, Librarian Emeritus, The John Crerar Library. His subject will be "The Search for the Vital Principle."

Branch Meeting.—The North Shore Branch of the Chicago Medical Society was addressed April 6 at the Edgewater Beach Hotel by Doctors Wesley Gustafson on "Low Back Pain" and Herbert Schmitz on "Treatment of Carcinoma of the Uterus." The discussants were Doctors Claude Lambert and H. E. Davis, respectively.

Dr. Van Hoosen Honored.—The University of Michigan Alumnae Club of Chicago presented Dr. Bertha Van Hoosen, pioneer woman physician on March 23 with a citation as "Outstanding Michigan Woman of the Year." The award was made at a Michigan day dinner in the Chicago Bar Association, 29 South La Salle Street, observing the anniversary of the school's founding. Dr. V. A. Lathan presented the citation to Dr. Van Hoosen in recognition of her sixty years of accomplishment in the field of medicine. Dr. Van Hoosen, who was guest speaker, received her bachelor of arts degree from Michigan in 1884 and her medical doctorate in 1888. She also received an honorary master of arts degree from the school in 1913. Her autobiography, "Petticoat Surgeon", was published last year.

DE WITT COUNTY

New Health Officer.—Effective January 5, 1948, Dr. Corinne S. Eddy was appointed health officer for the DeWitt-Piatt County Health Department with offices in Clinton. A graduate of the University of Chicago, Dr. Eddy received her medical training at the University of Illinois. She also holds a master's degree in public health from Columbia University in New York City. Dr. Eddy has had seven years of experience in public health work, having served as health officer in counties of Alabama and Mississippi, and as administrative director for the Lincoln City, Lancaster County Department of Health in Lincoln, Nebraska.

DU PAGE COUNTY

Society News.—Dr. George V. LeRoy, Chicago, discussed "Clinical Hematology" before the Du-Page County Medical Society, March 17, at the Memorial Hospital in Elmhurst.

New Health Officer.—Dr. Charles H. Benning, formerly director of public health at Oak Ridge, Tenn., has been appointed health officer of Du Page County, according to the Chicago Sun-Times.

EFFINGHAM COUNTY

New Health Officer.—Dr. Fred O. Tonney has been named health officer for Effingham and Shelby Counties. Dr. Tonney will have offices in the Holman building on West Fayette Avenue.

FRANKLIN COUNTY

Society News.—Dr. Leo Brown, Herrin, addressed a public meeting March 23 in Sesser, on "Cancer." He spoke under the auspices of the Sesser Woman's Club Health Committee.

GREENE COUNTY

Society News.—Dr. Theodore R. Van Dellen, Chicago, spoke before the Greene County Medical Society in Carrollton, March 12, on "The Use of Penicillin and Antibiotics".

HENRY COUNTY

Retired Physician in Demand as Health Speaker.—Dr. John H. Murphy, Geneseo, who retired from active practice for reasons of health, has built up a new and popular reputation as a speaker on health educational subjects. At first, Dr. Murphy began teaching three days a week even while he was still in practice but when he retired he found that lecturing gave him an added interest so he expanded it to five days a week. He started teaching in the Geneseo public schools but now carries on not only in Geneseo but in Rock Island and Moline. During the coming school year, he will teach in East Moline also. Dr. Murphy is a life member of the Iowa and Illinois Central District Medical Association.

A coronary thrombosis necessitated Dr. Murphy's retirement. However, according to the Iowa and Illinois Central District Medical Association Bulletin, he stated that "when it becomes necessary for a physician to retire, he should still continue to live — not merely exist. He will need something more than his hobbies and the memories of the past." Dr. Murphy's educational lectures on sex were stimulated by a request from the superintendent of the public schools of Geneseo. An added thought of Dr. Murphy's in the recent bulletin is expressed: "By education and experience, a doctor may be fitted to do part time in any of the following: Medical abstracting, medical research, teaching, medical counseling, school counseling, industrial psychiaty, writing or lecturing for the laity on medical subjects, etc. There is employment for scores of men in the light occupation which I have chosen for my old age. Why vegetate?"

KANKAKEE COUNTY

Personal.—Dr. Ernest S. Klein, Chicago State Hospital staff member, has been promoted to the assistant superintendency at Kankakee State Hospital, succeeding Dr. Abraham Simon who had been named superintendent of Alton State Hospital. Dr. Klein has been in state service since July, 1937, and before going to Chicago State, was on duty at Dixon State Hospital. He was in military service in World War II as assistant neuropsychiatry chief at Camp Crowder, Mo., and later at Camp Dodge, Ia. Subsequently he was commanding officer of the Fort Leavenworth, Kan., Disciplinary barracks station hospital.

KNOX COUNTY

Society News.—Dr. Edmund Smolik, St. Louis, addressed the Knox County Medical Society in Galesburg, resently, on "Prefrontal Lobotomy."

MADISON COUNTY

Personal.—At the last meeting of the Pennsylvania Railroad Physicians and Surgeons, held at the Palmer House in Chicago, Dr. E. F. Moore, Collinsville, secretary of the Madison County Medical Society, was elected vice president of the Association. He has served as a physician for the Pennsylvania Railroad for about fifteen years, and being elected to this office puts him in line for the presidency of the organization next year.

MONTGOMERY COUNTY

Society News.—Dr. Harry A. Oberhelman, Chicago, addressed a joint meeting of the Montgomery and Macoupin County Medical Societies, March 23, at the Carlinville Country Club, Carlinville, on "Problems in Gall Bladder Surgery."

MARION COUNTY

Society News.—Dr. Leo Gottlieb, assistant professor of clinical medicine, Washington University School of Medicine, addressed the Marion, Clinton and Washington County Medical Societies in Centralia, March 18, on "Thyrotoxicosis."

MASSAC COUNTY

Society Election.—At the annual election of officers held by the Massac County Medical Society, Dr. V. O. Decker was elected president, succeeding Dr. S. P. Ward. Dr. Harry Wright was elected vice president and Dr. G. F. Cummins was reelected secretary-treasurer.

PEORIA COUNTY

Society News.—Dr. Elliott P. Joslin, professor emeritus Harvard Medical School, physician in chief, Deaconess Hospital, Boston, addressed the Peoria Medical Society, March 16, at the Hotel Pere Marquette, Peoria, on "Diabetes."

RICHLAND COUNTY

Election of Officers.—Dr. S. A. Jackson was elected president of the Richland County Medical Society at a recent meeting succeeding Dr. Ralph King. Dr. T. F. Summers is vice president and Dr. John Stull, secretary-treasurer.

ROCK ISLAND COUNTY

Society News.—Dr. Paul Holinger, Chicago, addressed the Rock Island County Medical Society, March 9, on "Cancer of the Larynx and of the Lung." Dr. J. W. Seids, Moline, was elected a life member of the society at this meeting. Dr. C. Wesley Eisele, Chicago, addressed the society on February 10 on "Problems in the Diagnosis and Treatment of Brucellosis". He gave a similar address on February 25 before the St. Joseph County Medical Society in South Bend, Ind.

ST. CLAIR COUNTY

St. Clair Society Votes to Admit Negroes.—By a vote of 32 to 10, the by-laws of the St. Clair County Medical Society have been amended to admit Negro physicians and surgeons to membership in the organization, it is reported.

SANGAMON COUNTY

Heart Discussion.—A joint meeting of the Illinois Heart Association and the Sangamon County Medical Society was addressed March 4 by Doctors Harry A. Durkin, president of the Illinois Heart Association, on "American Heart Associations" and Arlie R. Barnes, president of the American Heart Association, on "The Treatment of Congestive Heart Failure."—The Springfield Medical Club was addressed at its annual meeting, March 25, by Dr.

Robert Lee Sanders, Memphis, Tenn., on "Surgery in Peptic Ulcer, Including Vagatomy."

TAZEWELL COUNTY

Society Holds Dinner Dance.—On April 14 the Tazewell County Medical Society conducted a dinner dance which was the first post-war party of the society. The affair was held at the Pekin Country Club. Recently elected officers of the society include Drs. Nelson A. Wright, Pekin, president; Harold Feldman, Pekin, vice president, and Kenneth M. Calhoun, Tremont, secretary.

WARREN COUNTY

Crippled Children's Clinic Held.—The Warren County Crippled Children's Clinic was held at the Monmouth Hospital, March 18, under the auspices of the Warren County Medical Society in cooperation with the National Foundation for Infantile Paralysis. Dr. Richard Bennett, Jr., Chicago, conducted the clinic.

Science Contest Sponsored by County Society.—The Warren County Medical Society has posted a $100 cash prize to stimulate interest in science among students of Monmouth High School, according to the Monmouth Atlas. The money will be divided into four prizes, two of $30 and two of $20. There will be a first prize of $30 and a second prize of $20 in each of two fields, physical science and biologic science, and any students enrolled in the various science courses may compete, the courses including physics, chemistry, biology and physiology. A committee of townspeople will select the winners. The prize fund has been set up by a physician who prefers to remain anonymous, according to Dr. Joseph C. Sherrick, Monmouth, secretary of the Warren County Medical Society.

WHITESIDE COUNTY

Society News.—A joint meeting of the Lee and Whiteside County Medical Societies was addressed in Sterling, April 12, by Dr. Rexford Finegan, assistant medical director of the Metropolitan Life Insurance Company of New York, on "Life Insurance Examinations and Recent Life Insurance Statistics."

WINNEBAGO COUNTY

Society News.—The Winnebago County Medical Society was addressed by Frank H. Gane, Ph. D., assistant professor of finance, Northwestern University, at a noon luncheon, March 19, on "The Relation of Our National Debt to Current Financial Conditions."

GENERAL

Society Awards Certificates of Attendance.—At the 1947 meeting of the Mississippi Valley Medical Society, certificates of attendance were awarded to the following members who had attended ten annual meetings during ten or more consecutive years of active membership: J. F. Ross, Golden; P. H. Dechow, Kinderhook; C. M. Fleming, Rushville; R. A. Harris, Quincy; G. E. Kirby, Spring Valley; and M. Pinson Neal, Columbia.

Meeting of Chest Physicians.—The Illinois Chapter of the American College of Chest Physicians was addressed at the Congress Hotel, Chicago, April 16 by the following Chicago physicians: Dr. Johann Bornstein, on "Bronchial Lavage as a Diagnostic Aid in Chest Diseases"; Dr. W. E. Adams, "Differential Diagnosis in Cystic Disease of the Lung"; and Drs. Willard Van Hazel, Paul H. Holinger, and Robert J. Jensik, "Adenoma of the Bronchus." The discussants on the program were Drs. William J. Bryan, Rockford; J. A. Stocker, Springfield; and Jerome R. Head, Chicago.

Conference in Neuropsychiatry.—A postgraduate conference in neuropsychiatry was held at the Dixon State Hospital, Dixon, March 31, under the auspices of the State Department of Public Welfare. The speakers on the afternoon program, all Chicago physicians, included the following: Dr. Joseph C. Rheingold, "The Anxiety State"; Dr. Heinz Kohut, "Psychiatric Consultations in a General Hospital"; Dr. William H. Haines, "The Criminal Psychopath"; Dr. David B. Rotman, "Functions of a Court Psychiatrist"; Dr. Sophia Schroeder Sloman, "Fundamentals of Child Psychiatry"; Dr. V. G. Urse, "Interpretation of Revised Mental Health Act"; Dr. Roland P. Mackay, "Common Types of Headache and Their Management"; Dr. Lewis J. Pollock, "Peripheral Nerve Injuries". The evening speaker was Dr. W. W. Bauer, Chicago, who discussed "The Nation's Health is Good." Dr. Warren G. Murray, superintendent of the Dixon State Hospital, acted as host at a 6 p. m. dinner.

"For The Common Good"

"The Doctor and His Medical Society," the exhibit of the Illinois State Medical Society, was on display in Springfield, May 8-10, during the three day meeting of the Illinois Congress of Parents and Teachers. Lists of county medical society officers, Doctors and Horses, and the Doctor and His Medical Society, two educational brochures, and varied copies of Health Talk were distributed at the Convention. Mrs. Everett Butler, Alton, Illinois, State Chairman, Health and Summer Round-Up Committee, Illinois Congress of Parents and Teachers, paid public tribute to the Illinois State Medical Society in an expression of appreciation of continued cooperation. A resolution was adopted by the Congress expressing thanks to the Illinois State Medical Society for its cooperation.

Mrs. Margaret B. Cowden, Director, Bureau of Health Education, Illinois Department of Public Health, in her talk before the local summer round-up chairmen, emphasized the need of knowing the local

resources and emphasized the county medical society's cooperation in all activities.

Several hundred copies of HEALTH TALK were mailed two days following the session to the city nurse of Springfield and a local health chairman for distribution at school round-ups the following day.

Dr. Paul S. Baur, Secretary of the Alexander County Medical Society, developed local meetings in Cairo, April 22, to utilize the time of Dr. W. W. Bauer, Director, Bureau of Health Education, American Medical Association, during a stop-over in Cairo on his return from a meeting of the Kentucky Congress of Parents and Teachers. This was the first request received from the AMA Bureau of Health Education in its new program of making available members of the headquarters staff while enroute to other meetings.

The Effingham County Medical Society, Dr. P. A. Adams, Secretary, has worked out a program whereby the local papers will use HEALTH TALK.

HEALTH TALK is now a regular feature of the editorial page of the Chicago Defender.

Visitors in the Chicago office recently included Father P. J. Toomey, C. S. V., teaching fellow in psychology, De Paul University.

The Secretaries Conference in Peoria has proved successful from a standpoint of information received. Two new requests have come in for help in obtaining speakers: Kane County Medical Society, and the Pike-Calhoun Counties Medical Society.

The Lawrence County Health Department, of which Dr. Dale E. Scholz is medical director, recently published an outline of a sample one day's activities, under the auspices of the Lawrence County Medical Society. Coupled with the schedule, indicating routine efforts of the staff of the department, appears HEALTH TALK of the Educational Committee of the Illinois State Medical Society. The issue used was "Health Police — the Public Health Nurse." In addition, answers were given to the question, why a health officer does not immunize school and pre-school children instead of the school board or Parent-Teacher Association employing a private physician to carry out these protective measures: (1) It would be impossible for a health officer to immunize all school and pre-school children in Lawrence and Wabash Counties and have any time left to carry out his other duties and direct the program outlined above; (2) It would not leave the free choice of a physician up to the individual school board or parent teachers association. The health officer would be "marching in" so to speak to each school. This is exactly what your health department does not intend to do; (3) A health officer is employed to direct a health department much the same as a hospital superintendent is employed to direct a hospital. Has anyone ever heard of a hospital administrator doing surgery or obstetrics or carrying out other procedures in the field of private practice. His job is one of administration — to formulate hospital policies — . . . Similarly a health officer's job is not the private practice of medicine."

Lectures Arranged Through the Educational Committee of the Illinois State Medical Society; Dr. Charles P. Blair, Monmouth, Chairman:

Mr. Edward F. Stegen, Association Administrator, National Physicians Committee for the Extension of Medical Service, Beverly Hills Town Meeting, March 21, Socialized Medicine.

Dr. Robert R. Mustell, Chicago, Division Street Y. M. C. A., Chicago, March 29, Prevention of Death in the Boxing Ring.

Dr. Julius E. Ginsberg, Chicago, Chemistry Club of Bowen High School, Chicago, April 9, Cosmetics and Care of the Skin You Love to Retouch.

Dr. Adrian D. M. Kraus, Chicago, Copernicus School P. T. A., Chicago, April 13, on "Shots."

Dr. W. W. Bauer, Director, Bureau of Health Education, American Medical Association, Chicago, Fenger High School, Chicago, April 14, That's What You Think.

Dr. Arthur S. Webb, Glen Ellyn, Ill., Grundy County Federation of Women's Clubs, in Gardner, April 15, on Tuberculosis.

Dr. Walter Lawrence, Berwyn, First Career Conference of North Central College, Naperville, April 22, Medicine as a Career.

Lectures Arranged Through the Scientific Service Committee of the Illinois State Medical Society; Dr. Robert S. Berghoff, Chicago, Chairman:

Dr. Harry A. Oberhelman, Chicago, Macoupin County Medical Society, Carlinville, March 23, Problems in Biliary Tract Surgery.

Dr. Irving Mack, Chicago, Effingham County Medical Society, Effingham, March 18, Drug Administration in Heart Disease.

Dr. Paul Dirkse, Peoria, McDonough County Medical Society, Macomb, March 25, Management of Advanced Carcinoma.

Dr. Edward G. Tatge, Evanston, Kane County Medical Society, Elgin, April 14, The Allergic Constitution.

Dr. Charles D. Krause, Chicago, Effingham County Medical Society, Effingham, April 15, Thyrotoxicosis in Pregnancy.

Dr. Harold W. Miller, Chicago, West Side Branch, Chicago Dental Society, April 20, Discussion of Medical Insurance: Its Status in the Future.

Dr. John S. Scully, Chicago, Fulton County Medical Society, Canton, April 23, Surgical Management of Urolithiasis.

Dr. John L. Reichert, Chicago, La Salle County Medical Society, La Salle, May 13, Recent Trends in Immunization.

Dr. Harry H. Boyle, Chicago, Effingham County Medical Society, Effingham, May 20, Nephritis in Childhood.

Dr. Eugene L. Walsh, Chicago, McDonough County Medical Society, Bushnell, May 28, Chronic Bronchitis.

Dr. Leo K. Campbell, Chicago, Vermilion County Medical Society, June 1, Management of Diabetes Mellitus Complicated by Surgical and Obstetrical Emergencies.

Dr. Edward L. Cornell, Chicago, Will-Grundy County Medical Society, Joliet, June 10, Vaginal Itching.

Dr. William M. McMillan, Chicago, Will-Grundy County Medical Society, Joliet, June 24, Surgical Treatment of Hypertension.

Conference Arranged through Postgraduate Education Committee of the Illinois State Medical Society; Dr. Robert S. Berghoff, Chicago, Chairman:

Fourth Councilor District in Kewanee, April 15 (Rock Island, Henry, Stark, Mercer, Henderson, Warren, Knox, Peoria, Hancock, McDonough, Fulton and Schuyler), at the Hotel Kewanee, with Dr. Charles P. Blair, Monmouth, Councilor, Presiding, and the Henry County Medical Society acting as host at the luncheon. Chicago participants will include:

Dr. George F. O'Brien, Chemotherapy.

Dr. Philip Lewin, Back Disturbances with Special Reference to the Disc Syndromes.

Dr. Julius Richmond, Recent Advances in Pediatrics.

Dr. Percy E. Hopkins, Illinois Prepayment Medical Care Plan.

Dr. Ford K. Hick, Emotional Problems of Patients with Organic Heart Disease.

Dr. Philip Thorek, The Peptic Ulcer Problem.

In the evening at dinner, the speakers were Mr. Mr. Frank Preston, Johnson, Kewanee, "The Window Trimmer," and Dr. John Youmans, dean, University of Illinois College of Medicine, on "Nutritional Anemia."

HEALTH DEPARTMENT ACTIVITIES

Report on Rabies. — Pointing out that rabies is widespread among dogs in northern Illinois and has been found lately also in a fox, Arnold P. Benson, Director of Agriculture, and Dr. Roland R. Cross, Director of Public Health of issued jointly recently a statement urging that all dogs be vaccinated or strictly confined and that precautions be taken against marauding foxes. "Man-biting rabid dogs cause a tremendous amount of risk to health, expense, discomfort and inconvenience," Dr. Cross declared. "More than 3,600 individuals were given the Pasteur anti-rabic treatment last year, and about 500 to date this year, as a result of bites by rabid dogs. The total cost for these treatments was upwards of a quarter of a million dollars." Mr. Benson declared that rabid dogs do an immense amount of economic damage by attacking live-stock and causing rabies among cattle, sheep and hogs. "Rabies is already wide-spread among foxes in certain eastern and southern States, notably New York, Alabama and Georgia," Dr. Cross said. "Last week the examination in our laboratories of a fox head from Whiteside County in Illinois proved positive for rabies. This fox had bitten a farm hand and had attacked a herd of dairy cattle on the same farm before it was killed. With this evidence at hand, every effort should be made to prevent the further spread of rabies among foxes. The disease is extremely difficult to control once it gains epidemic magnitude among foxes." Mr. Benson pointed out that his Department may be compelled to place a quarantine on dogs if the spread of rabies gets out of control. Vaccination of dogs was highly recommended by both Benson and Cross as a sensible precaution and an urgent need.

Mortality of So-Called Diseases of Old Age. — Evidence that people are living longer is found in mortality statistics from the State Department of Public Health showing that seven out of every 10 deaths in Illinois are due to the so-called diseases of old age. Of the five leading causes of death in the State in 1946, four — heart disease, cancer, cerebral hemorrhage and nephritis — are diseases characteristic of middle life and old age. In the same category are diabetes and arteriosclerosis which ranked among the first 10 causes of mortality. These six degenerative diseases were responsible for 60,893 deaths in 1946, or more than two-thirds of the total mortality for the State. Statistics also reveal that 90 per cent of the mortality attributed to these six causes was among people 45 years of age or older, with one-half of the deaths occurring among persons past 65. As to the possibility of reducing deaths from these causes, Dr. Roland R. Cross, Illinois Director of Public Health, emphasized that "all of these six degenerative diseases are subject to at least some degree of control in most cases through self-discipline and through the intelligent use of medical knowledge. Most forms of heart disease can be controlled indefinitely by following medical advice, while early diagnosis of cancer and appropriate treatment with radium, X-ray or surgery will do much to lower the death rate from this disease. Diabetes can be controlled but not cured with insulin or by a modification of diet and exercise or a combination of the three." Dr. Cross also pointed out that periodic physical examinations, providing

early detection of any important health defects, are perhaps the most effective step in preventing the degenerative diseases of old age.

DEATHS

GERALD R. ALLABEN, Rockton, formerly of Rockford, who graduated at Rush Medical College in 1913, died at Hines Veterans Hospital, April 1, aged 59. He had served on the medical staff at Hines Hospital for 17 years and was in charge of the tumor section.

EMANUEL ROBERT CLEMONS, Chicago, who graduated at Meharry Medical College, Nashville, Tenn., 1916, died Dec. 5, 1947, aged 56, of coronary thrombosis.

THOMAS FRANCIS DOYLE, Chicago, who graduated at Rush Medical College in 1904, died January 16, aged 65, of coronary thrombosis. He was a member of the staff of Woodlawn Hospital, of which he had been one of the founders.

WILLIAM HENRY GAMBILL, Centralia, who graduated at the University of Michigan Department of Medicine and Surgery, Ann Arbor, Mich., died Dec. 14, 1947, aged 66, of coronary thrombosis. Was a past president of Marion County Medical Society; served as chairman of the advisory board of the Illinois State Department of Conservation.

WILLIAM L. KARCHER, Freeport, who graduated at the Medico-Chirurgical College of Philadelphia in 1900, died in his home March 3, aged 73. He had practiced medicine in Freeport for 46 years.

HENRY MARKEE, retired, Blandinsville, who graduated at Eclectic Medical College, Cincinnati, in 1902, died March 19, aged 85.

HARRY CORWIN MOSS, Carbondale, who graduated at Missouri Medical College, St. Louis, in 1898, died March 23, aged 78. He had practiced medicine in Albion until 1918 and was in Carbondale 30 years.

LEONARD J. MUNSON, Wilmette, who graduated at Jenner Medical College, Chicago, in 1906, died March 13, aged 72. He had been head of Marshall Field & Company's medical bureau for 40 years.

JOHN C. NUNN, Quincy, who graduated at Hospital College of Medicine, Louisville, 1896, died Dec. 24, 1947, aged 75, of a malignant tumor of the right parotid gland.

SAMUEL BENJAMIN PEACOCK, Pittsfield, who graduated at Keokuk Medical College, Keokuk, in 1896, died suddenly of a heart attack, March 6, aged 82. He was awarded a "Fifty Year Pin" in March, 1946.

LAMBERT WILLIAM ROSENBAUM, Chicago, who graduated at Jenner Medical College, Chicago, in 1913, died Dec. 29, 1947, aged 64, of carcinoma of the liver.

WILLIAM GRANT ROSS, retired, Kempton, who graduated at Rush Medical College in 1902, died in his home, Feb. 25, aged 79.

CARL ERIC SANDBERG, Chicago, who graduated at Chicago College of Medicine and Surgery in 1908, died Jan. 8, aged 78, of cerebral hemorrhage.

HERBERT JULIUS SCHMIDT, Chicago, who graduated at University of Illinois College of Medicine in 1920, died March 21, aged 52. He was a member of the surgical staff of Englewood Hospital.

ELIAS SELINGER, Chicago, who graduated at Northwestern University Medical School in 1924, died Dec. 21, 1947, in El Paso, Texas, of coronary occlusion, aged 49. He was professor of ophthalmology at Cook County Graduate School; specialist certified by the American Board of Ophthalmology and the American Board of Otolaryngology; on the staffs of Michael Reese, Cook County and Mount Sinai Hospitals and at one time on the faculty of Rush Medical College.

ALEXANDER A. WHAMMOND, Chicago, who graduated at Rush Medical College in 1896, died in Norwegian-American Hospital March 7, aged 75. He was chief of staff of Robert Burns Hospital which he had founded.

When two hundred consecutive autopsies were done in a general hospital which does not knowingly admit tuberculous patients, 41 cases of tuberculosis of all types were found. Of the 41 cases, 31 died of causes other than tuberculosis, and the patients as well as the physician were completely unaware of the disease. In view of the high incidence of undetected tuberculosis, the conclusion is that no patient should be admitted to a general hospital without X-ray examination of the chest. A. dePaula, Prensa Med. Argent., Abst., Am. Rev. Tbc., Aug., 1947.

Think of the benefit from a campaign to stop the spray of infected mouth and nose droplets. Not only would the spread of the disease be slowed but the seasonal surge of diseases like the common cold, influenza, measles, whooping cough and pneumonia would diminish. It would be possible to go to a movie without having a germ-laden spray hurled at one from behind and consequently having to suffer from the other fellow's respiratory infection. Under these conditions, dodging the tubercle bacillus, in and out of the hospital, would be possible for all of us. Ezra Bridge, M.D., NTA Bull., June, 1947.